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NEWS	2		"Ask CAS" for self-help around the clock
NEWS	3	DEC 21	IPC search and display fields enhanced in CA/CAPLUS with the IPC reform
NEWS	4	DEC 23	New IPC8 SEARCH, DISPLAY, and SELECT fields in USPATFULL/USPAT2
NEWS	5	JAN 13	IPC 8 searching in IFIPAT, IFIUDB, and IFICDB
NEWS	6	JAN 13	New IPC 8 SEARCH, DISPLAY, and SELECT enhancements added to INPADOC
NEWS	7	JAN 17	Pre-1988 INPI data added to MARPAT
NEWS	8	JAN 17	IPC 8 in the WPI family of databases including WPIFV
NEWS	9	JAN 30	Saved answer limit increased
NEWS	10	JAN 31	Monthly current-awareness alert (SDI) frequency added to TULSA
NEWS	11	FEB 21	STN AnaVist, Version 1.1, lets you share your STN AnaVist visualization results
NEWS	12	FEB 22	Status of current WO (PCT) information on STN
NEWS	13	FEB 22	The IPC thesaurus added to additional patent databases on STN
NEWS	14	FEB 22	Updates in EPFULL; IPC 8 enhancements added
NEWS	15	FEB 27	New STN AnaVist pricing effective March 1, 2006
NEWS	16	FEB 28	MEDLINE/LMEDLINE reload improves functionality
NEWS	17	FEB 28	TOXCENTER reloaded with enhancements
NEWS	18	FEB 28	REGISTRY/ZREGISTRY enhanced with more experimental spectral property data
NEWS	19	MAR 01	INSPEC reloaded and enhanced
NEWS	20	MAR 03	Updates in PATDPA; addition of IPC 8 data without attributes
NEWS	21	MAR 08	X.25 communication option no longer available after June 2006
NEWS	22	MAR 22	EMBASE is now updated on a daily basis
NEWS EXPRESS	FEBRUARY 15 CURRENT VERSION FOR WINDOWS IS V8.01a, CURRENT MACINTOSH VERSION IS V6.0c(ENG) AND V6.0Jc(JP), AND CURRENT DISCOVER FILE IS DATED 19 DECEMBER 2005. V8.0 AND V8.01 USERS CAN OBTAIN THE UPGRADE TO V8.01a AT <a href="http://download.cas.org/express/v8.0-Discover/">http://download.cas.org/express/v8.0-Discover/</a>		
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FILE 'HOME' ENTERED AT 06:50:56 ON 24 MAR 2006

=> file reg

COST IN U.S. DOLLARS

SINCE FILE

TOTAL

ENTRY

SESSION

FULL ESTIMATED COST

1.47

1.47

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STRUCTURE FILE UPDATES: 22 MAR 2006 HIGHEST RN 877759-05-2

DICTIONARY FILE UPDATES: 22 MAR 2006 HIGHEST RN 877759-05-2

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\*\*\*\*\*  
\*  
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\* the IDE default display format and the ED field has been added, \*  
\* effective March 20, 2005. A new display format, IDERL, is now \*  
\* available and contains the CA role and document type information. \*  
\*  
\*\*\*\*\*

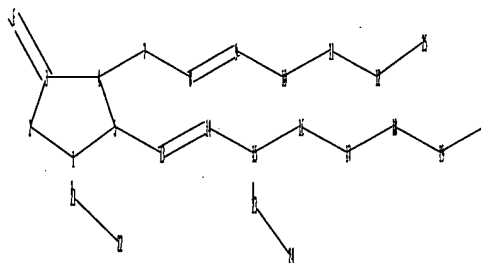
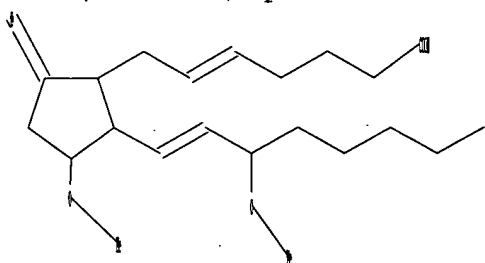
Structure search iteration limits have been increased. See HELP SLIMITS for details.

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<http://www.cas.org/ONLINE/UG/regprops.html>

=>

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chain nodes :

6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24 25

ring nodes :

1 2 3 4 5

chain bonds :

1-21 3-6 4-7 5-13 7-8 8-9 9-10 10-11 11-12 12-25 13-14 14-15 15-16  
15-23 16-17 17-18 18-19 19-20 21-22 23-24

ring bonds :  
1-2 1-5 2-3 3-4 4-5  
exact/norm bonds :  
1-2 1-5 1-21 2-3 3-4 3-6 4-5 15-23  
exact bonds :  
4-7 5-13 7-8 8-9 9-10 10-11 11-12 12-25 13-14 14-15 15-16 16-17 17-18  
18-19 19-20 21-22 23-24

Match level :  
1:Atom 2:Atom 3:Atom 4:Atom 5:Atom 6:CLASS 7:CLASS 8:CLASS 9:CLASS  
10:CLASS 11:CLASS 12:CLASS 13:CLASS 14:CLASS 15:CLASS 16:CLASS 17:CLASS  
18:CLASS 19:CLASS 20:CLASS 21:CLASS 22:CLASS 23:CLASS 24:CLASS 25:CLASS

L1 STRUCTURE UPLOADED

=> s l1  
SAMPLE SEARCH INITIATED 06:56:13 FILE 'REGISTRY'  
SAMPLE SCREEN SEARCH COMPLETED - 48 TO ITERATE

100.0% PROCESSED 48 ITERATIONS 1 ANSWERS  
SEARCH TIME: 00.00.01

FULL FILE PROJECTIONS: ONLINE \*\*COMPLETE\*\*  
BATCH \*\*COMPLETE\*\*  
PROJECTED ITERATIONS: 545 TO 1375  
PROJECTED ANSWERS: 1 TO 80

L2 1 SEA SSS SAM L1

=> s l1 full  
FULL SEARCH INITIATED 06:56:16 FILE 'REGISTRY'  
FULL SCREEN SEARCH COMPLETED - 1118 TO ITERATE

100.0% PROCESSED 1118 ITERATIONS 4 ANSWERS  
SEARCH TIME: 00.00.01

L3 4 SEA SSS FUL L1

=> file caplus  
COST IN U.S. DOLLARS SINCE FILE TOTAL  
ENTRY SESSION  
FULL ESTIMATED COST 167.38 168.85

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FILE LAST UPDATED: 22 Mar 2006 (20060322/ED)

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<http://www.cas.org/infopolicy.html>

=> s 13

L4 27 L3

=> s 14 (L) (prostaglandin or EP3)

68216 PROSTAGLANDIN

984 EP3

L5 19 L4 (L) (PROSTAGLANDIN OR EP3)

=> s 15 and allergy

42523 ALLERGY

L6 1 L5 AND ALLERGY

=> d bib abs hitstr

L6 ANSWER 1 OF 1 CAPLUS COPYRIGHT 2006 ACS on STN

AN 2004:333600 CAPLUS

DN 140:344925

TI Remedies for allergic diseases containing EP3 receptor agonists

IN Narumiya, Shuh

PA Ono Pharmaceutical Co., Ltd., Japan

SO PCT Int. Appl., 60 pp.

CODEN: PIXXD2

DT Patent

LA Japanese

FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	WO 2004032964	A1	20040422	WO 2003-JP12980	20031009
	W:	AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, EG, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NI, NO, NZ, OM, PG, PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, SY, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, YU, ZA, ZM, ZW			
	RW:	GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZM, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM, AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IT, LU, MC, NL, PT, RO, SE, SI, SK, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG			
	AU 2003272962	A1	20040504	AU 2003-272962	20031009
	EP 1563845	A1	20050817	EP 2003-754059	20031009
	R:	AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, LT, LV, FI, RO, MK, CY, AL, TR, BG, CZ, EE, HU, SK			
PRAI	JP 2002-297900	A	20021010		
	WO 2003-JP12980	W	20031009		

OS MARPAT 140:344925

AB Disclosed is a preventive and/or a remedy for allergic diseases containing a compound having an agonistic activity to EP3 receptor which is one of prostaglandin E2 receptor subtypes. More specifically speaking, a compound having an agonistic activity to EP3 receptor is efficacious in treating allergic respiratory diseases such as bronchial asthma, infantile asthma, allergic asthma and atopic asthma. Moreover, it is expected that a highly selective compound would exert a more remarkable therapeutic effect. The effect of 11 $\alpha$ ,15 $\alpha$ -dimethoxy-9-oxoprostano-5Z,13E-dienoic acid (I) in OVA-induced asthma model mice was examined. Also, a tablet containing I 0.5 mg/tablet was prepared.

IT 211230-67-0

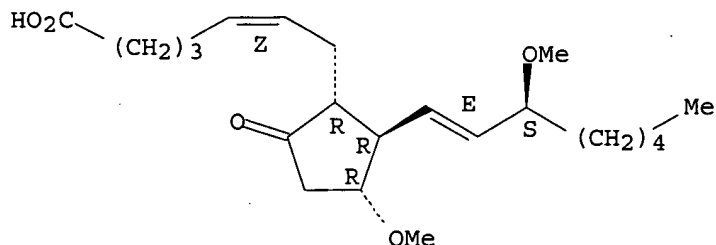
RL: PAC (Pharmacological activity); THU (Therapeutic use); BIOL

(Biological study); USES (Uses)

(remedies for allergic diseases containing EP3 receptor agonists)

RN 211230-67-0 CAPLUS  
CN Prosta-5,13-dien-1-oic acid, 11,15-dimethoxy-9-oxo-,  
(5Z,11α,13E,15S)- (9CI) (CA INDEX NAME)

Absolute stereochemistry.  
Double bond geometry as shown.



RE.CNT 14 THERE ARE 14 CITED REFERENCES AVAILABLE FOR THIS RECORD  
ALL CITATIONS AVAILABLE IN THE RE FORMAT

=> s 15 and allerg?

65253 ALLERG?

L7 1 L5 AND ALLERG?

=> s 15 and (asthma or "hay fever" or reaction or hypersensitivity)

30341 ASTHMA

14664 "HAY"

27656 "FEVER"

1408 "HAY FEVER"

("HAY" (W) "FEVER")

2893439 REACTION

20307 HYPERSENSITIVITY

L8 2 L5 AND (ASTHMA OR "HAY FEVER" OR REACTION OR HYPERSENSITIVITY)

=> d 1-2 bib abs hitstr

L8 ANSWER 1 OF 2 CAPLUS COPYRIGHT 2006 ACS on STN

AN 2004:333600 CAPLUS

DN 140:344925

TI Remedies for allergic diseases containing EP3 receptor agonists

IN Narumiya, Shuh

PA Ono Pharmaceutical Co., Ltd., Japan

SO PCT Int. Appl., 60 pp.

CODEN: PIXXD2

DT Patent

LA Japanese

FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	WO 2004032964	A1	20040422	WO 2003-JP12980	20031009
	W:	AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, EG, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NI, NO, NZ, OM, PG, PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, SY, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, YU, ZA, ZM, ZW			
	RW:	GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZM, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM, AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IT, LU, MC, NL, PT, RO, SE, SI, SK, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG			
	AU 2003272962	A1	20040504	AU 2003-272962	20031009
	EP 1563845	A1	20050817	EP 2003-754059	20031009
	R:	AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT,			

IE, SI, LT, LV, FI, RO, MK, CY, AL, TR, BG, CZ, EE, HU, SK

PRAI JP.2002-297900 A 20021010  
 WO 2003-JP12980 W 20031009

OS MARPAT 140:344925

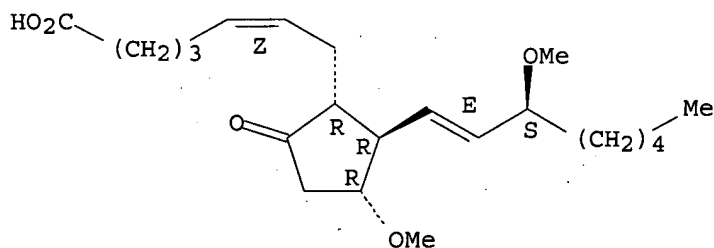
AB Disclosed is a preventive and/or a remedy for allergic diseases containing a compound having an agonistic activity to EP3 receptor which is one of prostaglandin E2 receptor subtypes. More specifically speaking, a compound having an agonistic activity to EP3 receptor is efficacious in treating allergic respiratory diseases such as bronchial asthma, infantile asthma, allergic asthma and atopic asthma. Moreover, it is expected that a highly selective compound would exert a more remarkable therapeutic effect. The effect of 11 $\alpha$ ,15 $\alpha$ -dimethoxy-9-oxoprostano-5Z,13E-dienoic acid (I) in OVA-induced asthma model mice was examined Also, a tablet containing I 0.5 mg/tablet was prepared

IT 211230-67-0  
 RL: PAC (Pharmacological activity); THU (Therapeutic use); BIOL (Biological study); USES (Uses)  
 (remedies for allergic diseases containing EP3 receptor agonists)

RN 211230-67-0 CAPLUS

CN Prosta-5,13-dien-1-oic acid, 11,15-dimethoxy-9-oxo-,  
 (5Z,11 $\alpha$ ,13E,15S)- (9CI) (CA INDEX NAME)

Absolute stereochemistry.  
 Double bond geometry as shown.



RE.CNT 14 THERE ARE 14 CITED REFERENCES AVAILABLE FOR THIS RECORD  
 ALL CITATIONS AVAILABLE IN THE RE FORMAT

L8 ANSWER 2 OF 2 CAPLUS COPYRIGHT 2006 ACS on STN

AN 2003:101602 CAPLUS

DN 138:332109

TI Mechanisms of cytosolic Ca<sup>2+</sup> suppression by prostaglandin E2 receptors in rat melanotrophs

AU Nagata, T.; Harayama, N.; Sasaki, N.; Inoue, M.; Tanaka, K.; Toyohira, Y.; Uezono, Y.; Maruyama, T.; Yanagihara, N.; Ueta, Y.; Shibuya, I.

CS Department of Physiology, School of Medicine, University of Occupational and Environmental Health, Kitakyushu, 807-8555, Japan

SO Journal of Neuroendocrinology (2003), 15(1), 33-41  
 CODEN: JOUNE2; ISSN: 0953-8194

PB Blackwell Science Ltd.

DT Journal

LA English

AB The authors have previously reported that voltage-dependent Ca<sup>2+</sup> (VDC) channels of rat melanotrophs are inhibited by prostaglandin E2 (PGE2). In this study, mechanisms involved in the inhibitory actions of PGE2 receptors of rat melanotrophs were analyzed using reverse transcriptase-polymerase chain reaction (RT-PCR), Ca<sup>2+</sup>-imaging and whole-cell, patch-clamp techniques with recently developed EP agonists, each of which is selective for the known four subclasses of EP receptors (EP1-4). PGE2 reversibly suppressed the cytosolic Ca<sup>2+</sup> concentration ([Ca<sup>2+</sup>]<sub>i</sub>). The maximum reduction in [Ca<sup>2+</sup>]<sub>i</sub> by PGE2 was comparable to that by dopamine or to that by extracellular Ca<sup>2+</sup> removal. RT-PCR anal. of all four EP receptors revealed that EP3 and EP4 receptor mRNAs were expressed

in the intermediate lobe. The effects of PGE2 to suppress  $[Ca^{2+}]_i$  were mimicked by the selective EP3 agonist, ONO-AE-248, whereas three other EP agonists, ONO-DI-004 (EP1), ONO-AE1-259 (EP2) and ONO-AE1-329 (EP4), had little or no effect on  $[Ca^{2+}]_i$ . All four G-protein activated inward rectifying K<sup>+</sup> (GIRK) channel mRNAs were identified in intermediate lobe tissues by RT-PCR. Dopamine concentration-dependently activated GIRK currents, whereas PGE2 did not activate GIRK currents, even at the concentration causing maximal inhibition of VDC channels. These results suggest that PGE2 acts on EP3 receptors to suppress Ca<sup>2+</sup> entry of rat melanotrophs by selectively inhibiting VDC channels of these cells. The authors have compared the possible cellular and mol. mechanisms of inhibition by dopamine and PGE2.

IT 211230-67-0, ONO-AE-248

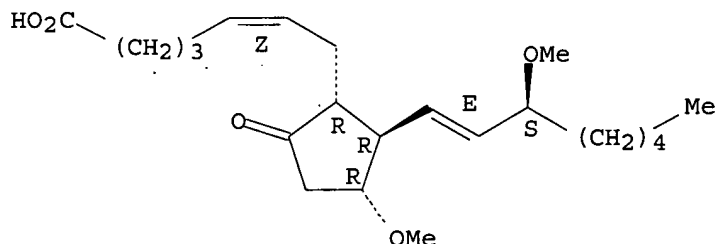
RL: BSU (Biological study, unclassified); BIOL (Biological study)  
(mechanisms of cytosolic calcium suppression by prostaglandin  
E2 receptors in rat melanotrophs in relation to inhibition by dopamine  
and PGE2 and role of potassium channels)

RN 211230-67-0 CAPLUS

CN Prosta-5,13-dien-1-oic acid, 11,15-dimethoxy-9-oxo-,  
(5Z,11 $\alpha$ ,13E,15S)- (9CI) (CA INDEX NAME)

Absolute stereochemistry.

Double bond geometry as shown.



RE.CNT 35 THERE ARE 35 CITED REFERENCES AVAILABLE FOR THIS RECORD  
ALL CITATIONS AVAILABLE IN THE RE FORMAT

=> s 15 and prostaglandin

68216 PROSTAGLANDIN

L9 15 L5 AND PROSTAGLANDIN

=> s prostaglandin (L) allerg?

68216 PROSTAGLANDIN

65253 ALLERG?

L10 592 PROSTAGLANDIN (L) ALLERG?

=> s 110 and ("prostaglandin E3" or EP3)

68216 "PROSTAGLANDIN"

10159 "E3"

63 "PROSTAGLANDIN E3"

("PROSTAGLANDIN" (W) "E3")

984 EP3

L11 14 L10 AND ("PROSTAGLANDIN E3" OR EP3)

=> d 1-14 bib abs

L11 ANSWER 1 OF 14 CAPLUS COPYRIGHT 2006 ACS on STN

AN 2006:261421 CAPLUS

TI Roles of prostaglandin D2 and prostaglandin E2 in  
allergic reactions: pro-allergic and anti-  
allergic modulating pathways

AU Segi-Nishida, Eri

CS Department of Pharmacology, Faculty of Medicine, Kyoto University, Kyoto,  
Japan

SO Ensho, Saisei (2006), 26(1), 29-34  
CODEN: ENSHCC; ISSN: 1346-8022  
PB Nippon Ensho-Saisei Igakkai  
DT Journal  
LA English  
AB Prostaglandin(PG) D2 and PGE2 are major cyclooxygenase metabolites of arachidonic acid produced during allergic reactions including asthma. However, the role of PGD2 and PGE2 in allergic inflammation has long been ambiguous. This is partly because non-steroidal anti-inflammatory drugs that inhibit prostanoid synthesis are generally ineffective in allergic disorders. Both PGs exert their actions by acting on G-protein-coupled receptors; PGD2 acts at the PGD receptor(DP), PGE2 acts at four subtypes of PGE receptor, EP1 to EP4. To dissect the roles of PGD2-DP pathway and each PGE2-EP pathway in allergic reactions, we subject mice deficient in DP, EP1, EP2, EP3 and EP4 receptor individually to ovalbumin-induced allergic asthma as a model of type I allergy. These studies have revealed that there are opposing actions between two prostanoid pathways in allergic reactions; PGD2-DP pathway and PGE2-EP3 pathway. We found that the PGD2 is an important mediator of allergic responses and that PGE2-EP3 signaling neg. regulates progression of allergic inflammation. This review focuses on the opposite roles of these prostanoid pathways in allergic reactions obtained by our studies and other studies. These findings suggest that selective manipulation of the prostanoid receptors may be beneficial in treatment of allergic diseases, such as bronchial asthma, allergic rhinitis and conjunctivitis.

L11 ANSWER 2 OF 14 CAPLUS COPYRIGHT 2006 ACS on STN  
AN 2005:338557 CAPLUS  
DN 142:428630  
TI Suppression of allergic inflammation by the  
prostaglandin E receptor subtype EP3  
AU Kunikata, Tomonori; Yamane, Hana; Segi, Eri; Matsuoka, Toshiyuki;  
Sugimoto, Yukihiko; Tanaka, Satoshi; Tanaka, Hiroyuki; Nagai, Hiroichi;  
Ichikawa, Atsushi; Narumiya, Shuh  
CS Department of Pharmacology and Faculty of Medicine and Graduate School of  
Pharmaceutical Sciences, Kyoto University, Kyoto, 606-8501, Japan  
SO Nature Immunology (2005), 6(5), 524-531  
CODEN: NIAMCZ; ISSN: 1529-2908

PB Nature Publishing Group  
DT Journal  
LA English  
AB Prostaglandins, including PGD2 and PGE2, are produced during allergic reactions. Although PGD2 is an important mediator of allergic responses, aspirin-like drugs that inhibit prostaglandin synthesis are generally ineffective in allergic disorders, suggesting that another prostaglandin-mediated pathway prevents the development of allergic reactions. Here we show that such a pathway may be mediated by PGE2 acting at the prostaglandin E receptor EP3. Mice lacking EP3 developed allergic inflammation that was much more pronounced than that in wild-type mice or mice deficient in other prostaglandin E receptor subtypes. Conversely, an EP3-selective agonist suppressed the inflammation. This suppression was effective when the agonist was administered 3 h after antigen challenge and was associated with inhibition of allergy-related gene expression. Thus, the PGE2-EP3 pathway is an important neg. modulator of allergic reactions.

RE.CNT 44 THERE ARE 44 CITED REFERENCES AVAILABLE FOR THIS RECORD  
ALL CITATIONS AVAILABLE IN THE RE FORMAT

L11 ANSWER 3 OF 14 CAPLUS COPYRIGHT 2006 ACS on STN  
AN 2004:1044002 CAPLUS  
DN 142:217217



TI Expression of prostaglandin E2 receptor subtypes on cells in sputum from patients with asthma and controls: Effect of allergen inhalational challenge

AU Ying, Sun; O'Connor, Brian J.; Meng, Qiu; Woodman, Natalie; Greenaway, Steven; Wong, Helen; Mallett, Kirsty; Lee, Tak H.; Corrigan, Chris

CS From the Department of Asthma, Allergy and Respiratory Science, King's and St Thomas' School of Medicine, UK

SO Journal of Allergy and Clinical Immunology (2004), 114(6), 1309-1316  
CODEN: JACIBY; ISSN: 0091-6749

PB Elsevier Inc.

DT Journal

LA English

AB Background: Prostaglandin (PG) E2 binds to 4 G-protein-coupled receptors designated EP1 through EP4. Although PGE2 plays an immunomodulatory role in asthma, there is little information on the expression of PGE2 receptors in this disease. Objective: the authors hypothesized that profiles of E-prostanoid (EP) receptor expression are altered on asthmatic bronchial inflammatory cells in vivo and further altered by allergen challenge in vivo and proinflammatory mediators in vitro. Methods: The nos. and phenotypes of EP1-4 immunoreactive induced sputum cells from atopic asthmatics (before and 24 h after allergen inhalational challenge) and normal controls (3 h after saline challenge) and EP1-4 expression on purified blood eosinophils from both groups (for each) before and after stimulation with LPS and/or IL-5 in vitro were measured by using single and double immunocytochem. Results: Subsets of sputum cells of all phenotypes expressed all 4 EP receptors in both patients with asthma and controls. There were significantly greater nos. of macrophages expressing all 4 EP receptors and increased percentages of macrophages expressing EP2 and EP4 in patients with asthma compared with controls. Allergen bronchial challenge of patients with asthma was associated with a selective influx of eosinophils, but the percentages of these and other leukocytes expressing all 4 EP receptors were unchanged. Compared with sputum, only small percentages of peripheral blood eosinophils expressed each receptor, but this was increased by culture with exogenous IL-5 or LPS. Conclusion: E-prostanoid receptor expression is increased on airway macrophages of patients with asthma at baseline and may be altered on eosinophils after allergen challenge in vivo in response to inflammatory stimuli.

RE.CNT 29 THERE ARE 29 CITED REFERENCES AVAILABLE FOR THIS RECORD  
ALL CITATIONS AVAILABLE IN THE RE FORMAT

L11 ANSWER 4 OF 14 CAPLUS COPYRIGHT 2006 ACS on STN

AN 2004:729843 CAPLUS

DN 141:388150

TI Discovery of orally active prostaglandin D2 receptor antagonists

AU Torisu, Kazuhiko; Kobayashi, Kaoru; Iwahashi, Maki; Nakai, Yoshihiko; Onoda, Takahiro; Nagase, Toshihiko; Sugimoto, Isamu; Okada, Yutaka; Matsumoto, Ryoji; Nanbu, Fumio; Ohuchida, Shuichi; Nakai, Hisao; Toda, Masaaki

CS Minase Research Institute, Ono Pharmaceutical Co., Ltd, Shimamoto, Osaka, Mishima, 618-8585, Japan

SO Bioorganic & Medicinal Chemistry Letters (2004), 14(19), 4891-4895  
CODEN: BMCLE8; ISSN: 0960-894X

PB Elsevier B.V.

DT Journal

LA English

OS CASREACT 141:388150

AB A series of N-(p-alkoxy)benzoyl-2-methylindole-4-acetic acids were synthesized and evaluated for prostaglandin D2 (DP) receptor affinity and antagonist activity. Some of them exhibited strong receptor binding and were potent in the cAMP formation assays. These antagonists also suppressed allergic inflammatory responses such as the PGD2-induced increase of microvascular permeability. Structure-activity relationship (SAR) data are presented.

RE.CNT 20 THERE ARE 20 CITED REFERENCES AVAILABLE FOR THIS RECORD

## ALL CITATIONS AVAILABLE IN THE RE FORMAT

L11 ANSWER 5 OF 14 CAPLUS COPYRIGHT 2006 ACS on STN  
 AN 2004:390250 CAPLUS  
 DN 140:406734  
 TI Preparation of pyridopyrrolizines and pyridoindolizines as prostaglandin  
 receptor, in particular PGD2, antagonists  
 IN Leblanc, Yves; Dufresne, Claude; Roy, Patrick  
 PA Merck Frosst Canada & Co., Can.  
 SO PCT Int. Appl., 68 pp.  
 CODEN: PIXXD2  
 DT Patent  
 LA English  
 FAN: CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	WO 2004039807	A1	20040513	WO 2003-CA1658	20031028
	W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, EG, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NI, NO, NZ, OM, PG, PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, SY, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, YU, ZA, ZM, ZW				
	RW: GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZM, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM, AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IT, LU, MC, NL, PT, RO, SE, SI, SK, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG				
	CA 2503767	AA	20040513	CA 2003-2503767	20031028
	AU 2003275868	A1	20040525	AU 2003-275868	20031028
	EP 1558614	A1	20050803	EP 2003-809672	20031028
	R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, LT, LV, FI, RO, MK, CY, AL, TR, BG, CZ, EE, HU, SK				
	BR 2003015681	A	20050906	BR 2003-15681	20031028
	JP 2006506457	T2	20060223	JP 2005-501791	20031028
	US 2005272756	A1	20051208	US 2005-532633	20050425
	NO 2005002591	A	20050729	NO 2005-2591	20050527
PRAI	US 2002-422443P	P	20021030		
	US 2003-482626P	P	20030626		
	WO 2003-CA1658	W	20031028		
OS	MARPAT 140:406734				
GI					

\* STRUCTURE DIAGRAM TOO LARGE FOR DISPLAY - AVAILABLE VIA OFFLINE PRINT \*

AB Title compds. I [wherein G = O(CH<sub>2</sub>)<sub>1-2</sub>, S(CH<sub>2</sub>)<sub>1-2</sub>, (un)substituted C<sub>1</sub>-3alkyl; Ar = hetero/aryl optionally substituted with R<sub>g</sub>; Q = CO<sub>2</sub>H, CONH<sub>2</sub> and derivs., SO<sub>2</sub>NH<sub>2</sub> and derivs., SO<sub>3</sub>H, PO<sub>3</sub>H<sub>2</sub> and tetrazolyl; one of A, B, C, or D is N and the others are independently selected from CH and CR<sub>g</sub>; E = (CH<sub>2</sub>)<sub>a</sub>-X-(CH<sub>2</sub>)<sub>b</sub>, phenylene, cycloalkylidene, cycloalkylene, etc.; a, b = 0-1, X = a bond, O, S, NH and derivs., etc.; F = (CH<sub>2</sub>)<sub>m</sub> and derivs., CH:CH and derivs.; m = 1-3; R<sub>1</sub> = H, CN, OH and derivs., (un)substituted alkyl, etc.; R<sub>2</sub> = H, alkyl optionally substituted with 1-6 halogens; R<sub>1</sub>R<sub>2</sub> = oxo; or R<sub>1</sub>R<sub>2</sub> = (un)substituted 3- or 4-membered ring, optionally containing 1 heteroatom; R<sub>3</sub> = H, (un)substituted alkyl; R<sub>g</sub> = halo, CN, CHO, CO<sub>2</sub>H and derivs., CONH<sub>2</sub> and derivs., NH<sub>2</sub> and derivs., NO<sub>2</sub>, alkoxy, OCONH<sub>2</sub> and derivs., SO<sub>2</sub>-alkyl, (un)substituted alk/en/yl, etc.] were prepared as prostaglandin receptor, in particular PGD<sub>2</sub>, antagonists useful for the treatment of prostaglandin-mediated diseases such as allergic rhinitis, nasal congestion and asthma (no data). Six biol. assays are given (no data). Thus, reaction of II (preparation given) with a mixture of bis(3,4-dichlorophenyl)disulfide, SO<sub>2</sub>Cl<sub>2</sub>, 1,2-dichloroethane, followed by hydrolysis gave the pyridoindoliziny acid

## III.

RE.CNT 7 THERE ARE 7 CITED REFERENCES AVAILABLE FOR THIS RECORD  
ALL CITATIONS AVAILABLE IN THE RE FORMAT

L11 ANSWER 6 OF 14 CAPLUS COPYRIGHT 2006 ACS on STN  
AN 2004:333600 CAPLUS  
DN 140:344925  
TI Remedies for allergic diseases containing EP3 receptor agonists  
IN Narumiya, Shuh  
PA Ono Pharmaceutical Co., Ltd., Japan  
SO PCT Int. Appl., 60 pp.  
CODEN: PIXXD2  
DT Patent  
LA Japanese  
FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	WO 2004032964	A1	20040422	WO 2003-JP12980	20031009
	W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, EG, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NI, NO, NZ, OM, PG, PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, SY, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, YU, ZA, ZM, ZW				
	RW: GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZM, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM, AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IT, LU, MC, NL, PT, RO, SE, SI, SK, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG				
	AU 2003272962	A1	20040504	AU 2003-272962	20031009
	EP 1563845	A1	20050817	EP 2003-754059	20031009
	R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, LT, LV, FI, RO, MK, CY, AL, TR, BG, CZ, EE, HU, SK				
PRAI	JP 2002-297900	A	20021010		
	WO 2003-JP12980	W	20031009		

OS MARPAT 140:344925  
AB Disclosed is a preventive and/or a remedy for allergic diseases containing a compound having an agonistic activity to EP3 receptor which is one of prostaglandin E2 receptor subtypes. More specifically speaking, a compound having an agonistic activity to EP3 receptor is efficacious in treating allergic respiratory diseases such as bronchial asthma, infantile asthma, allergic asthma and atopic asthma. Moreover, it is expected that a highly selective compound would exert a more remarkable therapeutic effect. The effect of 11 $\alpha$ ,15 $\alpha$ -dimethoxy-9-oxoprostanoic acid (I) in OVA-induced asthma model mice was examined. Also, a tablet containing I 0.5 mg/tablet was prepared.

RE.CNT 14 THERE ARE 14 CITED REFERENCES AVAILABLE FOR THIS RECORD  
ALL CITATIONS AVAILABLE IN THE RE FORMAT

L11 ANSWER 7 OF 14 CAPLUS COPYRIGHT 2006 ACS on STN  
AN 2003:591147 CAPLUS  
DN 139:149524  
TI Fluoro substituted cycloalkanoindoles, compositions containing such compounds and methods of treatment using them  
IN Berthelette, Carl; Lachance, Nicolas; Li, Lianhai; Sturino, Claudio; Wang, Zhaoyin  
PA Merck Frosst Canada & Co., Can.  
SO PCT Int. Appl., 40 pp.  
CODEN: PIXXD2  
DT Patent  
LA English  
FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	WO 2003062200	A2	20030731	WO 2003-CA84	20030122

WO 2003062200 A3 20031204  
W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NO, NZ, OM, PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, YU, ZA, ZM, ZW  
RW: GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZM, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM, AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IT, LU, MC, NL, PT, SE, SI, SK, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG  
US 2003158246 A1 20030821 US 2003-348403 20030121  
CA 2471952 AA 20030731 CA 2003-2471952 20030122  
BR 2003007050 A 20041026 BR 2003-7050 20030122  
EP 1470107 A2 20041027 EP 2003-700740 20030122  
R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, LT, LV, FI, RO, MK, CY, AL, TR, BG, CZ, EE, HU, SK  
US 2005124680 A1 20050609 US 2003-502380 20030122  
JP 2005518413 T2 20050623 JP 2003-562082 20030122  
NO 2004003536 A 20040824 NO 2004-3536 20040824  
PRAI US 2002-351384P P 20020124  
WO 2003-CA84 W 20030122  
OS MARPAT 139:149524  
GI

\* STRUCTURE DIAGRAM TOO LARGE FOR DISPLAY - AVAILABLE VIA OFFLINE PRINT \*

AB Fluoro substituted cycloalkanoindole derivs. I [X1 = (O)<sub>n</sub>; X2 = (CH<sub>2</sub>)<sub>m</sub>; n = 0, 1; m = 1 - 3; R1 = H, C1-3-alkyl, C1-3-haloalkyl, cyclopropyl; R2 = C<sub>6</sub>H<sub>4</sub>Cl-4, C<sub>6</sub>H<sub>2</sub>Cl<sub>3</sub>-2,4,6], their enantiomers and pharmaceutically acceptable salts, are antagonists of prostaglandins, and as such are useful for the treatment of prostaglandin mediated diseases. Thus, (-)-cyclopentanoindole II was prepared via cyclocondensation of 4-F-2-IC<sub>6</sub>H<sub>3</sub>NH<sub>2</sub> with Et 2-(2-oxocyclopentyl)acetate, saponification, regioselective bromination, N-alkylation with 4-ClC<sub>6</sub>H<sub>4</sub>CH<sub>2</sub>Br, resolution with (S)-(-)-1-(1-naphthyl)ethylamine, esterification with diazomethane, sulfonylation with MeSO<sub>2</sub>Na and ester hydrolysis. The binding activity of I for prostaglandin receptors was determined (no data).

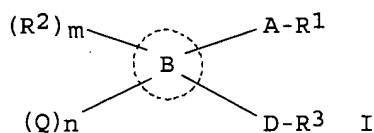
L11 ANSWER 8 OF 14 CAPLUS COPYRIGHT 2006 ACS on STN  
AN 2003:154382 CAPLUS  
DN 138:187795  
TI Preparation of aryl or heterocyclyl-substituted benzoic acid and alkanolic acid derivatives as antagonists of prostaglandin E2 (PEG2) receptors  
IN Tani, Kousuke; Asada, Masaki; Kobayashi, Kaoru; Narita, Masami; Ogawa, Mikio  
PA Ono Pharmaceutical Co., Ltd., Japan  
SO PCT Int. Appl., 1009 pp.  
CODEN: PIXXD2  
DT Patent  
LA Japanese  
FAN.CNT 1

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 2003016254	A1	20030227	WO 2002-JP8120	20020808
W:				
AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NO, NZ, OM, PH, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, YU, ZA, ZM, ZW				

RW: GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZM, ZW, AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, SK, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG

CA 2457468	AA	20030227	CA 2002-2457468	20020808
EP 1431267	A1	20040623	EP 2002-755874	20020808
R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, LT, LV, FI, RO, MK, CY, AL, TR, BG, CZ, EE, SK				
BR 2002011810	A	20040824	BR 2002-11810	20020808
CN 1551866	A	20041201	CN 2002-817376	20020808
NZ 531153	A	20051028	NZ 2002-531153	20020808
ZA 2004000973	A	20050104	ZA 2004-973	20040205
NO 2004000564	A	20040510	NO 2004-564	20040206
PRAI JP 2001-241867	A	20010809		
WO 2002-JP8120	W	20020808		

OS MARPAT 138:187795  
GI



AB Carboxylic acid derivs. (I) and nontoxic salts thereof [wherein R1 = CO2H, CO2R4, CH2OH, COR5SO2R6, CONH2, CH2NR5SO2R6, CH2NR9COR10, CH2NR9CONR5SO2R6, CH2SO2NR9COR10, CH2O2CNR5SO2R6, tetrazole, 1,2,4-oxadiazol-5-one, 1,2,4-oxadiazol-5-thione, 1,2,4-thiadiazol-5-one, etc. (wherein R4 = C1-6 alkyl, hydroxy-C1-4 alkyl, C1-4 alkoxy-C1-4 alkyl, carboxy-C1-4 alkyl, etc.; R5, R9 = H, C1-6 alkyl; R6 = C1-6 alkyl, C3-15 mono-, di-, or tricyclic carbocyclyl, 3- to 13-membered mono-, di-, or tricyclic heterocyclyl, etc.; R10 = H, R6); A = a single bond, C1-6 alkylene, C2-6 alkenylene, C2-6 alkynylene, etc.; the ring B = C3-12 mono- or dicyclic carbocyclic ring, 3- to 12-membered mono- or dicyclic heterocyclic ring; R2 = C1-6 alkyl, C1-6 alkoxy, C1-6 alkylthio, C2-6 alkenyl, C2-6 alkynyl, halo, CHF2, CF3, NO2, cyano, Ph, oxo; m, n = 0,1,2; Q = (C1-4 alkylene, C2-4 alkenylene, or C2-4 alkynylene)-Cyc2, -C1-4 alkylene-Z-Cyc3, amino-C1-4 alkyl, cyano-C1-4 alkyl, acylamino-C1-4 alkyl, 3- to 7-membered monocyclic carbocyclyl, 3- to 6-membered monocyclic heterocyclyl, etc. (wherein Cyc2, Cyc3 = C3-15 mono-, di-, or tricyclic carbocyclyl or heterocyclyl, etc.; Z = O, S, SO, SO2, NH, NHC(O), etc.); D = an linking chain consisting of 1-2 or 3-6 of atoms selected from C, N, O, or S, etc.; R3 = C1-6 alkyl, C3-15 mono-, di-, or tricyclic carbocyclyl, 3- to 15-membered mono-, di-, or tricyclic heterocyclyl, etc.] are prepared These carboxylic acid derivs. include phenylpropanoic acid, phenylpropenoic acid, phenylpropanamide, phenylpropenamide, 3-oxoisindolin-1-ylacetic acid, benzylbenzoic acid, benzylaminoacetic acid, pyrazolylmethylbenzoic acid, benzoylaminoacetic acid, (pyrazolylmethylphenyl)propenoic acid, pyrazolylmethylpropanoic acid, (pyridinyloxyphenyl)propanoic acid, phenoxyacetic acid, phenylbutanoic acid, (pyrazolylmethyl)propanamide, (piperazinylmethylphenyl)propanamide, (morpholinylmethylphenyl)propanamide, (pyridinyloxyphenyl)propanamide, (pyrazolylmethyl)propenamide (oxoimidazolidinylmethylphenyl)propanamide, (oxopyrrolidinylmethylphenyl)propanamide, (thiophenylmethylphenyl)propanamide, (pyrazolylmethylphenylamino)acetamide, (thiazolylaminomethylphenyl)propanamide, thiophenylpropenamide, (pyrazolylmethylphenoxy)acetamide, (phenoxyethyl)benzamide, (pyrazolylmethylphenylethyl)-1,2,4-oxadiazol-5-one, and (pyrazolylmethylphenylindolyl)acetic acid. Because of binding to PEG2 receptors, in particular, subtype EP3 and/or subtype EP4 and having antagonism, the compds. I are useful in preventing and/or

treating diseases such as pain, allodynia, hyperalgesia, pruritus (itching), urticaria, atopic dermatitis, contact dermatitis, Urushi (Japanese lacquer tree) dermatitis, allergic conjunctivitis, symptoms during dialysis, asthma, rhinitis, allergic rhinitis, nasal congestion, sneeze, psoriasis, pollakiuria (increased urinary frequency), urination disorder, ejaculation (semination) disorder, fever (pyrexia), systemic inflammation reaction, learning disorder, Alzheimer's disease, neovascularization, cancer formation, cancer proliferation, cancer metastasis to organs, cancer metastasis to bone, hypercalcemia accompanied by cancer metastasis to bone, retinopathy, rubrum, erythema (rash), leucoma, skin moth-patch, heat burn, burn, steroid burn, kidney failure, nephropathy, acute or chronic nephritis, blood electrolyte disorder, imminent abortion, threatened abortion, excessive menstruation, dysmenorrhea, endometriosis, premenstrual syndrome, uterine gland myopathy, reproduction disorder, and stress. They are also useful in preventing and/or treating anxiety, depression, psychophysiol. disorder, mental retardation, thrombus, embolism, transient ischemic attack, cerebral infarction, atheroma, organ transplant, heart failure, hypertension, myocardial infarction, arteriosclerosis, circulation disorders or ulcers associated therewith, nerve disorders, vascular dementia, edema, diarrhea, constipation, biliary excretion disorder, ulcerative colitis, Crohn's disease, irritable bowel syndrome, reduction of rebound after using steroid drugs, aids for decreasing or removing steroid drugs, bone diseases, systemic granuloma, immune diseases, pyorrhea alveolaris, gingivitis, periodontal disease, nerve cell death, lung disorder, liver disorder, acute hepatitis, myocardial ischemia, Kawasaki disease, multiple organ failure, chronic headache, angitis, venous failure, varicose vein (varicosis), anal fistula, diabetes insipidus, neonatal patent ductus arteriosus, and cholelithiasis. Thus, 4-hydroxymethyl-2-[2-(naphthalen-2-yl)ethoxy]cinnamic acid Et ester was mesylated by methanesulfonyl chloride in the presence of Et<sub>3</sub>N in THF at 0° for 15 min and condensed with pyrazole in the presence of NaH in DMF at 0° to give 2-[2-(naphthalen-2-yl)ethoxy]-4-(1-pyrazolylmethyl)cinnamic acid Et ester. 4-[2-[[2-(Naphthalen-1-yl)propanoyl]amino]-4-methylthiomethylphenyl]butanoic acid inhibited the binding of [3H]PGE<sub>2</sub> to prostaglandin E<sub>2</sub> (PGE<sub>2</sub>) receptor subtype EP<sub>1</sub>, EP<sub>2</sub>, EP<sub>3</sub>, and EP<sub>4</sub> expressed in CHO cells with K<sub>i</sub> of >10, >10, 0.27, and 0.038 μM, resp. A tablet formulation containing (2E)-2-[2-(naphthalen-2-yl)ethoxy]-4-(1-pyrazolylmethyl)cinnamic acid was described.

RE.CNT 14 THERE ARE 14 CITED REFERENCES AVAILABLE FOR THIS RECORD  
ALL CITATIONS AVAILABLE IN THE RE FORMAT

L11 ANSWER 9 OF 14 CAPLUS COPYRIGHT 2006 ACS on STN

AN 2002:362587 CAPLUS

DN 136:319468

TI The roles of the prostanoids played in the body

AU Ushikubi, Fumitaka; Narumiya, Shuh

CS Dep. Pharmacol., Asahikawa Med. Coll., Asahikawa, 078-8510, Japan

SO Nippon Yakurigaku Zasshi (2002), 119(4), 201-207

CODEN: NYKZAU; ISSN: 0015-5691

PB Nippon Yakuri Gakkai

DT Journal; General Review

LA Japanese

AB A review. The actions of prostanoids in various physiol. and pathophysiol. conditions have been examined using mice lacking the prostanoid receptors. PGD<sub>2</sub> was found to be a mediator of allergic asthma. Prostaglandin (PG) I<sub>2</sub> worked not only as a mediator of inflammation but also as an antithrombotic and cardio-protective agent. Several important actions of PGE<sub>2</sub> are brought out via the PGE<sub>2</sub>-receptor subtype EP<sub>3</sub>; PGE<sub>2</sub> participated in the regulation of platelet function, and it worked as a mediator of febrile responses to both endogenous and exogenous pyrogens. These novel findings on the roles of the prostanoids would contribute to the development of drugs targeting the prostanoid receptors.

L11 ANSWER 10 OF 14 CAPLUS COPYRIGHT 2006 ACS on STN

AN 2002:185059 CAPLUS

DN 136:232116

TI Preparation of benzoic acid derivatives as prostaglandin E2 receptor antagonists

IN Tani, Kousuke; Asada, Masaki; Kobayashi, Kaoru; Narita, Masami; Ogawa, Mikio

PA Ono Pharmaceutical Co., Ltd., Japan

SO PCT Int. Appl., 114 pp.

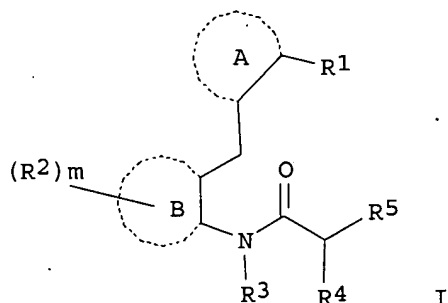
CODEN: PIXXD2

DT Patent

LA Japanese

FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	WO 2002020462	A1	20020314	WO 2001-JP7105	20010820
	W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NO, NZ, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TR, TT, TZ, UA, UG, US, UZ, VN, YU, ZA, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM				
	RW: GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZW, AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GW, ML, MR, NE, SN, TD, TG				
	AU 2001078772	A5	20020322	AU 2001-78772	20010820
	CA 2419722	AA	20030221	CA 2001-2419722	20010820
	EP 1314719	A1	20030528	EP 2001-956957	20010820
	R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, LT, LV, FI, RO, MK, CY, AL, TR				
	US 2004002493	A1	20040101	US 2003-362878	20030227
PRAI	JP 2000-264889	A	20000901		
	WO 2001-JP7105	W	20010820		
OS	MARPAT 136:232116				
GI					

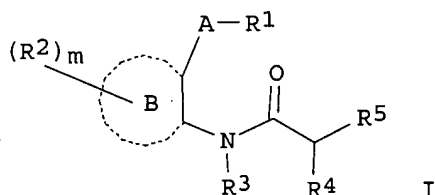


AB The title compds. I [R1 represents COOH, etc.; ring A and ring B each represents a carbon ring or a heterocycle; R2 represents alkyl, alkenyl, alkynyl, etc.; R3 represents H, alkyl; R4 represents alkyl, cycloalkyl, etc.; and R5 represents a carbon ring or a heterocycle; m is 0 - 2] are prepared I are antagonists of PGE2 receptors, in particular, subtypes EP3 and/or EP4 and are useful in the treatment of pain, allergy, Alzheimer's disease, cancer, etc. In an in vitro test for EP4 receptor antagonism, 2-[2-[2-(4-benzyloxyphenyl)propanoylamino]phenyl]methylbenzoic acid showed the Ki value of 0.01  $\mu$ M. A formulation is given.

RE.CNT 2 THERE ARE 2 CITED REFERENCES AVAILABLE FOR THIS RECORD  
ALL CITATIONS AVAILABLE IN THE RE FORMAT

L11 ANSWER 11 OF 14 CAPLUS COPYRIGHT 2006 ACS on STN  
 AN 2002:157726 CAPLUS  
 DN 136:216543  
 TI Carboxylic acid derivatives as prostaglandin E2 receptor antagonists and process for preparing them  
 IN Tani, Kousuke; Asada, Masaki; Kobayashi, Kaoru; Narita, Masami; Ogawa, Mikio  
 PA Ono Pharmaceutical Co., Ltd., Japan  
 SO PCT Int. Appl., 85 pp.  
 CODEN: PIXXD2  
 DT Patent  
 LA Japanese  
 FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	WO 2002016311	A1	20020228	WO 2001-JP7104	20010820
	W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NO, NZ, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TR, TT, TZ, UA, UG, US, UZ, VN, YU, ZA, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM RW: GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZW, AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG				
	AU 2001078771	A5	20020304	AU 2001-78771	20010820
	CA 2420042	AA	20030218	CA 2001-2420042	20010820
	EP 1312601	A1	20030521	EP 2001-956956	20010820
	R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, LT, LV, FI, RO, MK, CY, AL, TR				
	US 2003216381	A1	20031120	US 2003-344989	20030220
	US 6835752	B2	20041228		
	US 2004235825	A1	20041125	US 2004-864545	20040610
	US 2005026908	A1	20050203	US 2004-924924	20040825
PRAI	JP 2000-251365	A	20000822		
	WO 2001-JP7104	W	20010820		
	US 2003-344989	A3	20030220		
OS	MARPAT 136:216543				
GI					



AB The title compds. I [R1 represents CO2H, etc.; A represents alkylene, etc.; R2 represents alkyl, alkenyl, alkynyl, etc.; m = 0 - 2; ring B represents a heterocycle, etc.; R3 represents H, alkyl; R4 represents alkyl, cycloalkyl, etc.; and R5 represents a carbon ring or a heterocycle] are prepared I are antagonists of PGE2 receptors, in particular, subtypes EP3 and/or EP4 and are useful in the treatment of pain, allergy, Alzheimer's disease, cancer, etc. In an in vitro test for EP4 receptor antagonism, 4-[2-[2-(1-naphthyl)propanoylamino]phenyl]butanoic acid showed the Ki value of 0.3  $\mu$ M. A formulation is given.

RE.CNT 2 THERE ARE 2 CITED REFERENCES AVAILABLE FOR THIS RECORD  
 ALL CITATIONS AVAILABLE IN THE RE FORMAT

L11 ANSWER 12 OF 14 CAPLUS COPYRIGHT 2006 ACS on STN  
 AN 2002:51982 CAPLUS



DN 136:96105  
TI Use of cox-2 inhibitors to treat sepsis, complications thereof, and pros  
EP receptor modulation  
IN Mack Strong, Vivian E.; Stapleton, Philip P.; Daly, John M.  
PA USA  
SO U.S. Pat. Appl. Publ., 39 pp.  
CODEN: USXXCO

DT Patent  
LA English

FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	US 2002006915	A1	20020117	US 2001-782936	20010214
PRAI	US 2000-182524P	P	20000215		

AB The present invention is directed to methods of preventing, inhibiting, reversing and/or ameliorating complications in those having or at risk for systemic inflammatory response syndrome, e.g., sepsis, including multiple organ dysfunction syndrome, pancreatitis, burns, trauma, and complications of sepsis such as bacteremia, pneumonia, urinary tract infections, wound infections, and drug reactions. The methods comprise administration of an effective amount of at least one of a selective inhibitor of cyclooxygenase-2, a drug which stimulates one or more PGE2 receptors or a drug which interferes with binding of PGE2 to one of more PGE2 receptors.

L11 ANSWER 13 OF 14 CAPLUS COPYRIGHT 2006 ACS on STN

AN 2000:609702 CAPLUS

DN 133:232942

TI Roles of prostanoids revealed from studies using mice lacking specific prostanoid receptors

AU Ushikubi, Fumitaka; Sugimoto, Yukihiko; Ichikawa, Atsushi; Narumiya, Shuh

CS Department of Pharmacology, Asahikawa Medical College, Asahikawa, 078-8510, Japan

SO Japanese Journal of Pharmacology (2000), 83(4), 279-285

CODEN: JJPAAZ; ISSN: 0021-5198

PB Japanese Pharmacological Society

DT Journal; General Review

LA English

AB A review, with 61 refs. The actions of prostanoids in various physiol. and pathophysiol. conditions have been being examined using mice lacking different prostanoid receptors. Prostaglandin (PG) I2 worked not only as a mediator of inflammation but also as an antithrombotic agent. PGF2 $\alpha$  was found to be an essential inducer of labor. Several important actions of PGE2 are exerted via each of the four PGE2 receptor subtypes: EP1, EP2, EP3 and EP4. PGE2 participated in colon carcinogenesis via the EP1. PGE2 also participates in ovulation and fertilization and contributes to the control of blood pressure under high-salt intake via the EP2. PGE2 worked as a mediator of febrile responses to both endogenous and exogenous pyrogens and as a regulator of bicarbonate secretion induced by acid-stimulation in the duodenum via the EP3. It regulated the closure of ductus arteriosus and showed bone resorbing action via the EP4. PGD2 was found to be a mediator of allergic asthma. These studies have revealed important roles of prostanoids, some of which had not previously been known.

RE.CNT 61 THERE ARE 61 CITED REFERENCES AVAILABLE FOR THIS RECORD  
ALL CITATIONS AVAILABLE IN THE RE FORMAT

L11 ANSWER 14 OF 14 CAPLUS COPYRIGHT 2006 ACS on STN

AN 1996:607737 CAPLUS

DN 125:293831

TI Prostaglandin E2 receptors of the EP2 and EP4 subtypes regulate activation and differentiation of mouse B lymphocytes to IgE-secreting cells

AU Fedyk, Eric R.; Phipps, Richard P.

CS Department Microbiology Immunology, University Rochester School Medicine Dentistry, Rochester, NY, 14642, USA

SO Proceedings of the National Academy of Sciences of the United States of

America (1996), 93(20), 10978-10983

CODEN: PNASA6; ISSN: 0027-8424

PB National Academy of Sciences

DT Journal

LA English

AB Prostaglandin E2 (PGE2) is a potent lipid mol. with complex proinflammatory and immunoregulatory properties. PGF2 can shape the immune response by stimulating the production of IgE antibody by B lymphocytes and the synthesis of T-helper type 2 cytokines [e.g., interleukin (IL)-4, IL-10], while inhibiting production of Th1 cytokines (e.g., interferon- $\gamma$ , IL-12). It is unknown what type of receptor binds PGF2 and modulates these responses. Recent analyses in nonhematopoietic cells have identified six PGE2 receptors (EP1, EP2, EP3.alpha., EP3.beta., EP3.gamma., and EP4). This investigation examines quiescent B lymphocytes and reports that these cells express mRNA encoding EP1, EP2, EP3.beta., and EP4 receptors. The immunoregulatory functions of each receptor were investigated using small mol. agonists that preferentially bind EP receptor subtypes. Unlike agonists for EP1 and EP3, agonists that bound EP2 or EP2 and EP4 receptors strongly inhibited expression of class II major histocompatibility complex and CD23 and blocked enlargement of mouse B lymphocytes stimulated with IL-4 and/or lipopolysaccharide. PGE2 promotes differentiation and synergistically enhances IL-4 and lipopolysaccharide-driven B-cell Ig class switching to IgE. Agonists that bound EP2 or EP2 and EP4 receptors also strongly stimulated class switching to IgE. Expts. employing inhibitors of cAMP metabolism demonstrate that the mechanism by which EP2 and EP4 receptors regulate B lymphocyte activity requires elevation of cAMP. In conclusion, these data suggest that antagonists to EP2 and EP4 receptors will be important for diminishing allergic and IgE-mediated asthmatic responses.

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USPAT2  
NEWS 5 JAN 13 IPC 8 searching in IFIPAT, IFIUDB, and IFICDB  
NEWS 6 JAN 13 New IPC 8 SEARCH, DISPLAY, and SELECT enhancements added to  
INPADOC  
NEWS 7 JAN 17 Pre-1988 INPI data added to MARPAT  
NEWS 8 JAN 17 IPC 8 in the WPI family of databases including WPIFV  
NEWS 9 JAN 30 Saved answer limit increased  
NEWS 10 JAN 31 Monthly current-awareness alert (SDI) frequency  
added to TULSA  
NEWS 11 FEB 21 STN AnaVist, Version 1.1, lets you share your STN AnaVist  
visualization results  
NEWS 12 FEB 22 Status of current WO (PCT) information on STN  
NEWS 13 FEB 22 The IPC thesaurus added to additional patent databases on STN  
NEWS 14 FEB 22 Updates in EPFULL; IPC 8 enhancements added  
NEWS 15 FEB 27 New STN AnaVist pricing effective March 1, 2006  
NEWS 16 FEB 28 MEDLINE/LMEDLINE reload improves functionality  
NEWS 17 FEB 28 TOXCENTER reloaded with enhancements  
NEWS 18 FEB 28 REGISTRY/ZREGISTRY enhanced with more experimental spectral  
property data  
NEWS 19 MAR 01 INSPEC reloaded and enhanced  
NEWS 20 MAR 03 Updates in PATDPA; addition of IPC 8 data without attributes  
NEWS 21 MAR 08 X.25 communication option no longer available after June 2006  
NEWS 22 MAR 22 EMBASE is now updated on a daily basis  
  
NEWS EXPRESS FEBRUARY 15 CURRENT VERSION FOR WINDOWS IS V8.01a,  
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AND CURRENT DISCOVER FILE IS DATED 19 DECEMBER 2005.  
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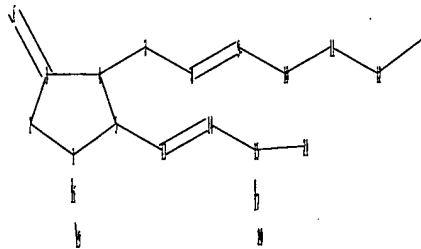
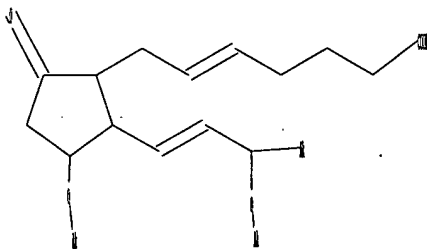
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chain nodes :

6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21

ring nodes :

1 2 3 4 5

chain bonds :

1-16 3-6 4-7 5-13 7-8 8-9 9-10 10-11 11-12 12-18 13-14 14-15 15-17  
15-21 16-19 17-20

ring bonds :  
1-2 1-5 2-3 3-4 4-5  
exact/norm bonds :  
1-2 1-5 1-16 2-3 3-4 3-6 4-5 15-17 15-21 16-19 17-20  
exact bonds :  
4-7 5-13 7-8 8-9 9-10 10-11 11-12 12-18 13-14 14-15

Match level :  
1:Atom 2:Atom 3:Atom 4:Atom 5:Atom 6:CLASS 7:CLASS 8:CLASS 9:CLASS  
10:CLASS 11:CLASS 12:CLASS 13:CLASS 14:CLASS 15:CLASS 16:CLASS 17:CLASS  
18:CLASS 19:CLASS 20:CLASS 21:CLASS

L1 STRUCTURE UPLOADED

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SAMPLE SCREEN SEARCH COMPLETED - 213 TO ITERATE

100.0% PROCESSED 213 ITERATIONS 2 ANSWERS  
SEARCH TIME: 00.00.01

FULL FILE PROJECTIONS: ONLINE \*\*COMPLETE\*\*  
BATCH \*\*COMPLETE\*\*  
PROJECTED ITERATIONS: 3385 TO 5135  
PROJECTED ANSWERS: 2 TO 124

L2 2 SEA SSS SAM L1

=> s l2 full  
FULL SEARCH INITIATED 07:25:10 FILE 'REGISTRY'  
FULL SCREEN SEARCH COMPLETED - 4062 TO ITERATE

100.0% PROCESSED 4062 ITERATIONS 24 ANSWERS  
SEARCH TIME: 00.00.01

L3 24 SEA SSS FUL L1

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FULL ESTIMATED COST 166.94 167.57

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=> s l3

L4 42 L3

=> s l4 and (ep3 or prostaglandin or allerg?)

984 EP3

68216 PROSTAGLANDIN

65253 ALLERG?

L5 40 L4 AND (EP3 OR PROSTAGLANDIN OR ALLERG?)

=> s l4 and (ep3 or prostaglandin)

984 EP3

68216 PROSTAGLANDIN

L6 40 L4 AND (EP3 OR PROSTAGLANDIN)

=> s l4 (L) ep3

984 EP3

L7 12 L4 (L) EP3

=> s l4 (L) allerg?

65253 ALLERG?

L8 1 L4 (L) ALLERG?

=> d

L8 ANSWER 1 OF 1 CAPLUS COPYRIGHT 2006 ACS on STN

AN 2004:333600 CAPLUS

DN 140:344925

TI Remedies for allergic diseases containing EP3 receptor agonists

IN Narumiya, Shuh

PA Ono Pharmaceutical Co., Ltd., Japan

SO PCT Int. Appl., 60 pp.

CODEN: PIXXD2

DT Patent

LA Japanese

FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	WO 2004032964	A1	20040422	WO 2003-JP12980	20031009
	W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, EG, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NI, NO, NZ, OM, PG, PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, SY, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, YU, ZA, ZM, ZW				
	RW: GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZM, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM, AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IT, LU, MC, NL, PT, RO, SE, SI, SK, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG				
	AU 2003272962	A1	20040504	AU 2003-272962	20031009
	EP 1563845	A1	20050817	EP 2003-754059	20031009
	R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, LT, LV, FI, RO, MK, CY, AL, TR, BG, CZ, EE, HU, SK				
PRAI	JP 2002-297900	A	20021010		
	WO 2003-JP12980	W	20031009		

OS MARPAT 140:344925

RE.CNT 14 THERE ARE 14 CITED REFERENCES AVAILABLE FOR THIS RECORD  
ALL CITATIONS AVAILABLE IN THE RE FORMAT

=> s 17

984 EP3

L9 12 L4 (L) EP3

=> d 1-12 bib abs hitstr

L9 ANSWER 1 OF 12 CAPLUS COPYRIGHT 2006 ACS on STN

AN 2005:430242 CAPLUS

DN 142:442242

TI Prostacyclin attenuates oxidative damage of myocytes by opening mitochondrial ATP-sensitive K<sup>+</sup> channels via the EP3 receptor

AU Shinmura, Ken; Tamaki, Kayoko; Sato, Toshiaki; Ishida, Hideyuki; Bolli, Roberto

CS Department of Internal Medicine, Keio University School of Medicine, Tokyo, Japan

SO American Journal of Physiology (2005), 288(5, Pt. 2), H2093-H2101  
CODEN: AJPHAP; ISSN: 0002-9513

PB American Physiological Society

DT Journal

LA English

AB Prostacyclin (PGI<sub>2</sub>) and the PGE family alleviate myocardial ischemia-reperfusion injury and limit oxidative damage. The cardioprotective effects of PGI<sub>2</sub> have been traditionally ascribed to activation of IP receptors. Recent advances in prostanoid research have revealed that PGI<sub>2</sub> can bind not only to IP, but also to EP, receptors, suggesting cross talk between PGI<sub>2</sub> and PGEs. The mechanism(s) whereby PGI<sub>2</sub> protects myocytes from oxidative damage and the specific receptors involved remain unknown. Thus fresh isolated adult rat myocytes were exposed to 200  $\mu$ M H<sub>2</sub>O<sub>2</sub> with or without carbaprostacyclin (cPGI<sub>2</sub>), IP-selective agonists, and ONO-AE-248 (an EP<sub>3</sub>-selective agonist). Cell viability was assessed by trypan blue exclusion after 30 min of H<sub>2</sub>O<sub>2</sub> superfusion. ONO-AE-248 and cPGI<sub>2</sub> significantly improved cell survival during H<sub>2</sub>O<sub>2</sub> superfusion; IP-selective agonists did not. The protective effect of cPGI<sub>2</sub> and ONO-AE-248 was completely abrogated by pretreatment with 5-hydroxydecanoate or glibenclamide. In the second series of expts., the mitochondrial ATP-sensitive K<sup>+</sup> (KATP) channel opener diazoxide (Dx) reversibly oxidized flavoproteins in control myocytes. Exposure to prostanoid analogs alone had no effect on flavoprotein fluorescence. A second application of Dx in the presence of cPGI<sub>2</sub> or ONO-AE-248 significantly increased flavoprotein fluorescence compared with Dx alone, but IP-selective agonists did not. This study demonstrates that PGI<sub>2</sub> analogs protect cardiac myocytes from oxidative stress mainly via activation of EP<sub>3</sub>. The data also indicate that activation of EP<sub>3</sub> receptors primes the opening of mitochondrial KATP channels and that this mechanism is essential for EP<sub>3</sub>-dependent protection.

IT 211230-67-0, ONO-AE-248

RL: DMA (Drug mechanism of action); PAC (Pharmacological activity); BIOL (Biological study)

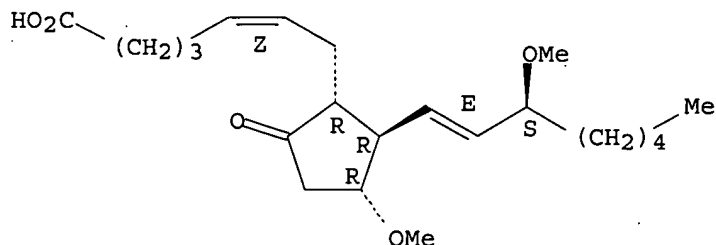
(prostacyclin attenuation of oxidative damage of rat cardiomyocytes by opening mitochondrial ATP-sensitive potassium channels via EP<sub>3</sub> receptors)

RN 211230-67-0 CAPLUS

CN Prosta-5,13-dien-1-oic acid, 11,15-dimethoxy-9-oxo-,  
(5Z,11 $\alpha$ ,13E,15S)- (9CI) (CA INDEX NAME)

Absolute stereochemistry.

Double bond geometry as shown.



RE.CNT 54 THERE ARE 54 CITED REFERENCES AVAILABLE FOR THIS RECORD  
ALL CITATIONS AVAILABLE IN THE RE FORMAT

L9 ANSWER 2 OF 12 CAPLUS COPYRIGHT 2006 ACS on STN  
AN 2005:96459 CAPLUS  
DN 142:148832  
TI Remedy for cartilage-related diseases containing EP2 and/or EP3 agonist  
IN Toguchida, Junya  
PA Ono Pharmaceutical Co., Ltd., Japan  
SO PCT Int. Appl., 122 pp.  
CODEN: PIXXD2  
DT Patent  
LA Japanese  
FAN.CNT 1

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 2005009468	A1	20050203	WO 2004-JP10890	20040723
W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BW, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, EG, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NA, NI, NO, NZ, OM, PG, PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, SY, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, YU, ZA, ZM, ZW RW: BW, GH, GM, KE, LS, MW, MZ, NA, SD, SL, SZ, TZ, UG, ZM, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM, AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IT, LU, MC, NL, PL, PT, RO, SE, SI, SK, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG				

PRAI JP 2003-280191 A 20030725

AB Disclosed is a remedy for cartilage-related diseases containing as the active ingredient a substance having an agonistic activity to prostaglandin receptor EP2 and/or EP3. A substance having an agonistic activity to EP2 and/or EP3 has effects of promoting chondrogenesis, promoting chondrocyte growth, promoting chondrocyte differentiation, inhibiting cartilage calcification and inhibiting cartilage degradation, or effects of promoting integrin mRNA expression, promoting fibronectin mRNA expression, promoting cyclin D1 mRNA expression and inhibiting osteopontin mRNA expression, and, therefore, is useful as a remedy for cartilage-related diseases. The remedy of the present invention is also usable in production of cartilage implant. The effect of an EP2 agonist (5Z,9β,11α,13E)-17,17-Propano-11,16-dihydroxy-9-chloro-20-norprosta-5,13-dienoic acid (I) on human chondrocyte proliferation was in vitro tested. Also a tablet containing I 0.5 mg/tablet was formulated.

IT 211230-67-0, ONO-AE-248

RL: PAC (Pharmacological activity); THU (Therapeutic use); BIOL (Biological study); USES (Uses)

(remedy for cartilage-related diseases containing EP2 and/or EP3 agonist)

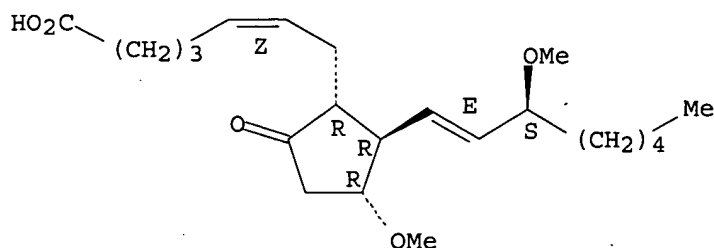
RN 211230-67-0 CAPLUS

CN Prosta-5,13-dien-1-oic acid, 11,15-dimethoxy-9-oxo-,  
(5Z,11α,13E,15S)- (9CI) (CA INDEX NAME)

Absolute stereochemistry.



Double bond geometry as shown.



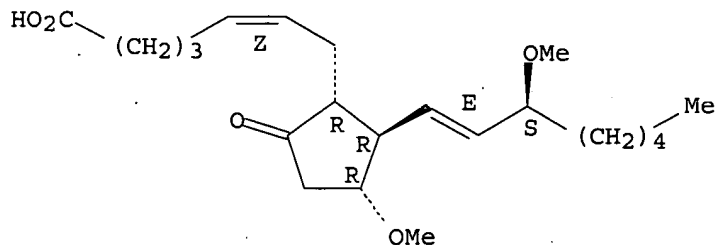
RE.CNT 81 THERE ARE 81 CITED REFERENCES AVAILABLE FOR THIS RECORD  
ALL CITATIONS AVAILABLE IN THE RE FORMAT

L9 ANSWER 3 OF 12 CAPLUS COPYRIGHT 2006 ACS on STN  
AN 2004:872709 CAPLUS  
DN 141:343520  
TI Remedy for spinal canal stenosis  
IN Takenobu, Yoshifumi; Kamanaka, Yoshihisa; Obata, Takaaki  
PA Ono Pharmaceutical Co., Ltd., Japan  
SO PCT Int. Appl., 70 pp.  
CODEN: PIXXD2  
DT Patent  
LA Japanese  
FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	WO 2004089411	A1	20041021	WO 2004-JP4836	20040402
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	RW:				
	BW, GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZM, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM, AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IT, LU, MC, NL, PL, PT, RO, SE, SI, SK, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG				
	EP 1609480	A1	20051228	EP 2004-725524	20040402
	R:				
	AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, LT, LV, FI, RO, MK, CY, AL, TR, BG, CZ, EE, HU, PL, SK, HR				
PRAI	JP 2003-100388	A	20030403		
	WO 2004-JP4836	W	20040402		
OS	MARPAT 141:343520				
AB	Disclosed is a remedy for spinal canal stenosis which comprises a combination of a compound having EP2 agonism with a compound having EP3 agonism. A drug comprising a combination of a compound having EP2 agonism with a compound having EP3 agonism shows an efficacy in a rat gait disorder model induced by compression of cauda equina. Namely, it is efficacious against spinal canal stenosis to use a combination of a compound having EP2 agonism with a compound having EP3 agonism or a compound having both of EP2 agonism and EP3 agonism. Animal studies and formulations were provided using (5Z,9ß,11α,13E)-17,17-propano-11,16-dihydroxy-9-chloro-20-norprosta-1,13-diene lysine salt and 11α,15α-Dimethoxy-9-oxoprosta-5Z,13E-dienoic acid.				
IT	211230-67-0 RL: PAC (Pharmacological activity); THU (Therapeutic use); BIOL (Biological study); USES (Uses) (spinal canal stenosis treatment with EP2 and EP3 agonists in combination with addnl. active agents)				
RN	211230-67-0 CAPLUS				
CN	Prosta-5,13-dien-1-oic acid, 11,15-dimethoxy-9-oxo-,				

(5Z,11 $\alpha$ ,13E,15S) - (9CI) (CA INDEX NAME)

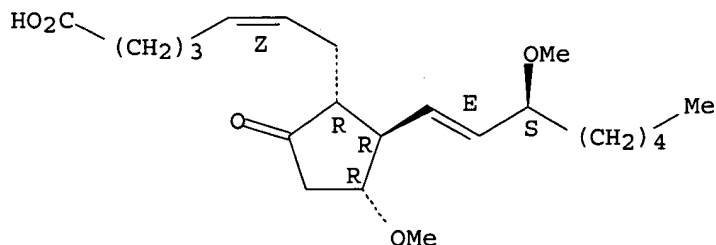
Absolute stereochemistry.  
Double bond geometry as shown.



RE.CNT 13 THERE ARE 13 CITED REFERENCES AVAILABLE FOR THIS RECORD  
ALL CITATIONS AVAILABLE IN THE RE FORMAT

L9 ANSWER 4 OF 12 CAPLUS COPYRIGHT 2006 ACS on STN  
AN 2004:866782 CAPLUS  
DN 141:389181  
TI Vasoconstriction induced by activation of EP1 and EP3 receptors in human lung: effects of ONO-AE-248, ONO-DI-004, ONO-8711 or ONO-8713  
AU Norel, Xavier; de Montpreville, Vincent; Brink, Charles  
CS Hopital Broussais, CNRS UMR7131, Paris, 75014, Fr.  
SO Prostaglandins & Other Lipid Mediators (2004), 74(1-4), 101-112  
CODEN: POLMFL; ISSN: 1098-8823  
PB Elsevier B.V.  
DT Journal  
LA English  
AB This study investigated the effects and selectivity of ONO-AE-248, ONO-DI-004, ONO-8711 and ONO-8713 on EP1 and EP3 receptors in human pulmonary vessels. The prostanoid receptors involved in the vasoconstriction of human pulmonary arteries (HPA) are TP and EP3 whereas in pulmonary veins (HPV), this response is associated with TP and EP1. The expts. were performed in presence of BAY u3405 (TP antagonist). ONO-DI-004 (EP1 agonist) and ONO-AE-248 (EP3 agonist), exhibited little or no activity in HPV, whereas contractions were induced in HPA with ONO-AE-248. In HPV, the contractions produced with sulprostone (EP1,3 agonist) were blocked in a non competitive manner by both EP1 antagonists (ONO-8711, 30  $\mu$ M; ONO-8713, 10  $\mu$ M). The involvement of EP1 mediated contraction in HPV was also observed during the vasorelaxations induced with PGE1 and 5-cis-carba-PGI2. In pre-contracted HPV treated with AH6809 (30  $\mu$ M; EP1 antagonist) the PGE1 vasorelaxations were potentiated, while unchanged in HPA. These results demonstrate the selectivity of ONO-AE-248 for the EP3 receptor in HPA, ONO-DI-004 was ineffective on the EP1 receptor present in HPV while ONO-8713 was the more potent EP1 antagonist used in this tissue.  
IT 211230-67-0, ONO-AE-248  
RL: BUU (Biological use, unclassified); PAC (Pharmacological activity); BIOL (Biological study); USES (Uses)  
(ONO-AE-248, ONO-DI-004, ONO-8711 and ONO-8713 effects and selectivity on EP1 and EP3 receptors in human pulmonary vessel vasoconstriction)  
RN 211230-67-0 CAPLUS  
CN Prosta-5,13-dien-1-oic acid, 11,15-dimethoxy-9-oxo-, (5Z,11 $\alpha$ ,13E,15S) - (9CI) (CA INDEX NAME)

Absolute stereochemistry.  
Double bond geometry as shown.



RE.CNT 54 THERE ARE 54 CITED REFERENCES AVAILABLE FOR THIS RECORD  
ALL CITATIONS AVAILABLE IN THE RE FORMAT

L9 ANSWER 5 OF 12 CAPLUS COPYRIGHT 2006 ACS on STN  
AN 2004:333600 CAPLUS  
DN 140:344925  
TI Remedies for allergic diseases containing EP3 receptor agonists  
IN Narumiya, Shuh  
PA Ono Pharmaceutical Co., Ltd., Japan  
SO PCT Int. Appl., 60 pp.  
CODEN: PIXXD2  
DT Patent  
LA Japanese  
FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	WO 2004032964	A1	20040422	WO 2003-JP12980	20031009
	W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, EG, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NI, NO, NZ, OM, PG, PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, SY, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, YU, ZA, ZM, ZW				
	RW: GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZM, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM, AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IT, LU, MC, NL, PT, RO, SE, SI, SK, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG				
	AU 2003272962	A1	20040504	AU 2003-272962	20031009
	EP 1563845	A1	20050817	EP 2003-754059	20031009
	R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, LT, LV, FI, RO, MK, CY, AL, TR, BG, CZ, EE, HU, SK				
PRAI	JP 2002-297900	A	20021010		
	WO 2003-JP12980	W	20031009		
OS	MARPAT 140:344925				

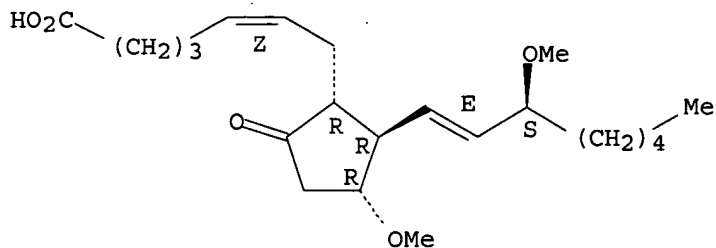
AB Disclosed is a preventive and/or a remedy for allergic diseases containing a compound having an agonistic activity to EP3 receptor which is one of prostaglandin E2 receptor subtypes. More specifically speaking, a compound having an agonistic activity to EP3 receptor is efficacious in treating allergic respiratory diseases such as bronchial asthma, infantile asthma, allergic asthma and atopic asthma. Moreover, it is expected that a highly selective compound would exert a more remarkable therapeutic effect. The effect of 11 $\alpha$ ,15 $\alpha$ -dimethoxy-9-oxoprostano-5Z,13E-dienoic acid (I) in OVA-induced asthma model mice was examined. Also, a tablet containing I 0.5 mg/tablet was prepared.

IT 211230-67-0  
RL: PAC (Pharmacological activity); THU (Therapeutic use); BIOL (Biological study); USES (Uses)  
(remedies for allergic diseases containing EP3 receptor agonists)

RN 211230-67-0 CAPLUS  
CN Prosta-5,13-dien-1-oic acid, 11,15-dimethoxy-9-oxo-, (5Z,11 $\alpha$ ,13E,15S)- (9CI) (CA INDEX NAME)

Absolute stereochemistry.

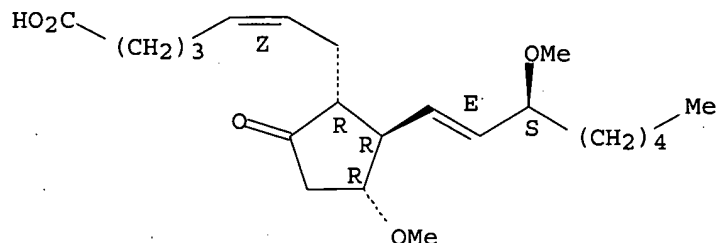
Double bond geometry as shown.



RE.CNT 14 THERE ARE 14 CITED REFERENCES AVAILABLE FOR THIS RECORD  
ALL CITATIONS AVAILABLE IN THE RE FORMAT

L9 ANSWER 6 OF 12 CAPLUS COPYRIGHT 2006 ACS on STN  
AN 2003:426197 CAPLUS  
DN 139:208133  
TI Effects of 8-iso-prostaglandin E2 and 8-iso-prostaglandin F2 $\alpha$  on the  
release of noradrenaline from the isolated rat stomach  
AU Nakamura, Kumiko; Okada, Shoshiro; Ono, Kaori; Yokotani, Kunihiro  
CS Department of Pharmacology, Kochi Medical School, Nankoku, Kochi,  
783-8505, Japan  
SO European Journal of Pharmacology (2003), 470(1-2), 73-78  
CODEN: EJPHAZ; ISSN: 0014-2999  
PB Elsevier Science B.V.  
DT Journal  
LA English  
AB In the present experiment, the authors examined the effect of  
8-iso-prostaglandin  
E2 and 8-iso-prostaglandin F2 $\alpha$  on the release of noradrenaline from  
the isolated rat stomach. The postganglionic sympathetic nerves were  
elec. stimulated twice at 1 Hz for 1 min and test reagents were added  
during the second stimulation. Addition of 8-iso-prostaglandin E2 (10-8-10-6  
M) and 8-iso-prostaglandin F2 $\alpha$  (10-7-10-5 M) dose-dependently  
reduced the evoked noradrenaline release, and these inhibitory potencies  
were as follows: 8-iso-prostaglandin E2 > 8-iso-prostaglandin F2 $\alpha$ .  
The inhibitory effect of 8-iso-prostaglandin F2 $\alpha$ , but not  
8-iso-prostaglandin E2, was abolished by 10-6 M SQ-29548  
([1S-[1 $\alpha$ ,2 $\alpha$ (Z),3 $\alpha$ ,4 $\alpha$ ]]-7-[3-[[2-  
[(phenylamino)carbonyl]hydrazino]methyl]-7-oxabicyclo[2,2,1]hept-2-yl]-5-  
heptenoic acid) (a prostanoid TP receptor antagonist). The inhibitory  
effect of 8-iso-prostaglandin E2 was abolished by 10-5 M AH-6809  
(6-isopropoxy-9-oxoxanthene-2-carboxylic acid) (a prostanoid EP receptor  
antagonist), which also attenuated the inhibitory effects of ONO-AE-248  
(16S-9-deoxy-9 $\beta$ -chloro-15-deoxy-16-hydroxy-17,17-trimethylene 19,  
20-didehydro prostaglandin F2) (a selective EP3 receptor agonist) on the  
evoked release of noradrenaline. The inhibitory effect of  
8-iso-prostaglandin F2 $\alpha$ , but not 8-iso-prostaglandin E2, was  
abolished by pertussis toxin. These results suggest that  
8-iso-prostaglandin F2 $\alpha$  inhibits noradrenaline release through TP  
receptors, whereas 8-iso-prostaglandin E2 seems to inhibit noradrenaline  
release through EP3 receptors, located on the gastric sympathetic nerve  
terminals in rats.  
IT 211230-67-0, ONO-AE-248  
RL: BSU (Biological study, unclassified); BIOL (Biological study)  
(EP3 receptor agonist; iso-PGE2 and iso-PGF2 $\alpha$  effect on  
noradrenaline release from isolated rat stomach and mechanisms thereof)  
RN 211230-67-0 CAPLUS  
CN Prosta-5,13-dien-1-oic acid, 11,15-dimethoxy-9-oxo-,  
(5Z,11 $\alpha$ ,13E,15S)- (9CI) (CA INDEX NAME)

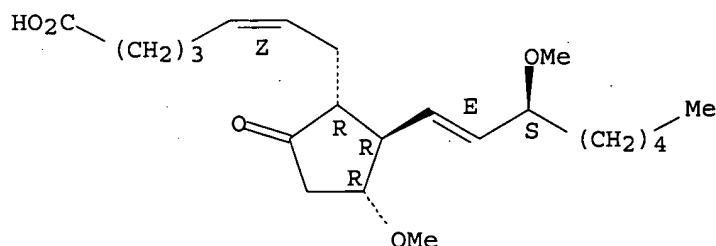
Absolute stereochemistry.  
Double bond geometry as shown.



RE.CNT 35 THERE ARE 35 CITED REFERENCES AVAILABLE FOR THIS RECORD  
ALL CITATIONS AVAILABLE IN THE RE FORMAT

L9 ANSWER 7 OF 12 CAPLUS COPYRIGHT 2006 ACS on STN  
AN 2003:231920 CAPLUS  
DN 139:63721  
TI Contrasting effects of E type prostaglandin (EP) receptor agonists on core body temperature in rats  
AU Oka, Takakazu; Oka, Kae; Saper, Clifford B.  
CS Department of Neurology and Program in Neuroscience, Beth Israel Deaconess Medical Center, Harvard Medical School, Boston, MA, 02115, USA  
SO Brain Research (2003), 968(2), 256-262  
CODEN: BRREAP; ISSN: 0006-8993  
PB Elsevier Science B.V.  
DT Journal  
LA English  
AB Prostaglandin E2 (PGE2) is thought to be a principal fever mediator. There are four subtypes of PGE (EP) receptors, EP1-EP4. The authors investigated which EP receptors mediate PGE2-induced hyperthermia by injecting selective EP receptor agonists into the rat lateral cerebral ventricle under unrestrained condition. ONO-DI-004, an EP1 receptor agonist, increased the core temperature (Tc) in a dose-dependent manner (1.6° at 20 nmol, with the peak 30 min after injection) with a time course similar to PGE2-induced hyperthermia. ONO-AE1-259-01 (20 nmol), an EP2 receptor agonist, did not change the Tc. ONO-AE-248 (20 nmol), an EP3 receptor agonist, also increased the Tc. However, the peak effect was delayed (1.2°, 50 min after injection) compared to PGE2. In contrast, ONO-AE1-329, an EP4 receptor agonist, decreased the Tc. These findings suggest that the EP1, EP3, and EP4 receptors all may contribute to the thermoregulatory response to PGE2, but each may have a different role.  
IT 211230-67-0, ONO-AE-248  
RL: BSU (Biological study, unclassified); BIOL (Biological study) (EP3 receptor agonist; contrasting effects of E type prostaglandin EP receptor agonists central administration on core body temperature in rats)  
RN 211230-67-0 CAPLUS  
CN Prosta-5,13-dien-1-oic acid, 11,15-dimethoxy-9-oxo-, (5Z,11α,13E,15S)- (9CI) (CA INDEX NAME).

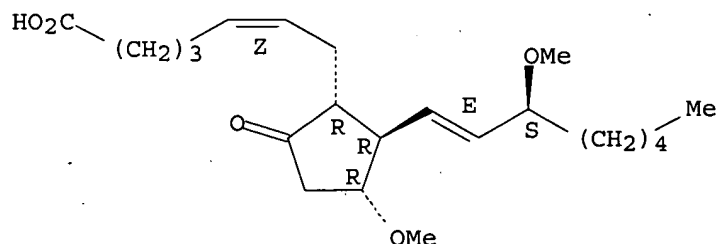
Absolute stereochemistry.  
Double bond geometry as shown.



RE.CNT 32      THERE ARE 32 CITED REFERENCES AVAILABLE FOR THIS RECORD  
ALL CITATIONS AVAILABLE IN THE RE FORMAT

L9    ANSWER 8 OF 12    CAPLUS    COPYRIGHT 2006 ACS on STN  
AN    2003:8043    CAPLUS  
DN    138:332106  
TI    Prostanoid EP3 and TP receptors-mediated inhibition of noradrenaline  
      release from the isolated rat stomach  
AU    Yokotani, Kunihiro; Nakamura, Kumiko; Okada, Shoshiro  
CS    Department of Pharmacology, Kochi Medical School, Nankoku, Kochi,  
      783-8505, Japan  
SO    European Journal of Pharmacology (2003), 459(2-3), 187-193  
      CODEN: EJPHAZ; ISSN: 0014-2999  
PB    Elsevier Science B.V.  
DT    Journal  
LA    English  
AB    The postganglionic sympathetic nerves of the isolated rat stomach were  
      elec. stimulated twice at 1 Hz for 1 min. Prostaglandin E2 and ONO-AE-248  
      (16S-9-deoxy-9 $\beta$ -chloro-15-deoxy-16-hydroxy-17,17-trimethylene-19,20-  
      didehydro prostaglandin F2) (an EP3 receptor agonist) reduced the evoked  
      noradrenaline release, while ONO-DI-004 (17S-2,5-ethano-6-oxo-17,20-  
      dimethyl prostaglandin E1) (an EP1 receptor agonist), ONO-AE1-259-01  
      (11,15-O-dimethyl prostaglandin E2) (an EP2 receptor agonist) and  
      ONO-AE1-329 [16-(3-methoxymethyl)phenyl- $\alpha$ -tetranor-3,7-dithia  
      prostaglandin E1] (an EP4 receptor agonist) had no effect. U-46619  
      (9,11-dideoxy-9 $\alpha$ ,11 $\alpha$ -methanoepoxy prostaglandin F2 $\alpha$ ) and  
      I-BOP (7-[3-[3-hydroxy-4-(4-iodophenoxy)-1-butenyl]-7-oxabicyclo[2,2,1]  
      hept-2-yl]-, [1S[1 $\alpha$ ,2 $\alpha$ (Z),3 $\beta$ (1E,3S)4 $\alpha$ ]]-5-heptenoic  
      acid) (TP receptor agonists) also reduced the noradrenaline release and  
      these inhibitory effects were abolished by SQ-29548 (a TP receptor  
      antagonist). The inhibitory effect of U-46619, but not ONO-AE-248, was  
      abolished by pertussis toxin. These results suggest that the prostanoid  
      EP3 and TP receptors mediate the inhibition of gastric noradrenaline  
      release; TP, but not EP3, receptor-mediated inhibition is mediated by a  
      pertussis toxin-sensitive mechanism in rats.  
IT    211230-67-0, ONO-AE-248  
      RL: BSU (Biological study, unclassified); BIOL (Biological study)  
      (prostanoid EP3 and TP receptors-mediated inhibition of  
      noradrenaline release from gastric sympathetic nerve terminal in  
      isolated rat stomach)  
RN    211230-67-0    CAPLUS  
CN    Prosta-5,13-dien-1-oic acid, 11,15-dimethoxy-9-oxo-,  
      (5Z,11 $\alpha$ ,13E,15S)- (9CI) (CA INDEX NAME)

Absolute stereochemistry.  
Double bond geometry as shown.

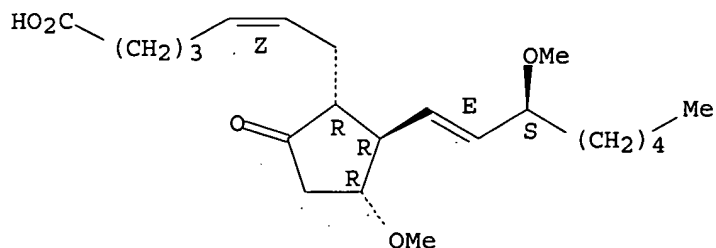


RE.CNT 37      THERE ARE 37 CITED REFERENCES AVAILABLE FOR THIS RECORD  
ALL CITATIONS AVAILABLE IN THE RE FORMAT

L9    ANSWER 9 OF 12    CAPLUS    COPYRIGHT 2006 ACS on STN  
AN    2002:380457    CAPLUS  
DN    137:164047

TI In vitro pharmacological characterization of the prostanoid receptor population in the non-pregnant porcine myometrium  
 AU Cao, Jinshan; Shayibuzhati, Mikeremu; Tajima, Tsuyoshi; Kitazawa, Takio; Taneike, Tetsuro  
 CS School of Veterinary Medicine, Department of Pharmacology, Rakuno Gakuen University, Ebetsu, Hokkaido, 069-8501, Japan  
 SO European Journal of Pharmacology (2002), 442(1-2), 115-123  
 CODEN: EJPHAZ; ISSN: 0014-2999  
 PB Elsevier Science B.V.  
 DT Journal  
 LA English  
 AB To characterize prostanoid receptors present in the non-pregnant porcine uterus, the effects of naturally occurring prostaglandins (D2, E2, F2 $\alpha$ , I2) and synthetic prostanoid receptor agonists on contractility of the longitudinal and circular muscles were examined in vitro. The potent contractile actions of prostaglandin F2 $\alpha$  and cloprostenol indicate the presence of excitatory FP receptors in the porcine uterus. The longitudinal muscle was more sensitive to FP receptor agonists than was the circular muscle. Prostaglandin D2 produced an excitatory response in the longitudinal muscle but completely inhibited the spontaneous contraction of the circular muscle. BW-245C (5-(6-carboxyhexyl)-1-(3-cyclohexyl-3-hydroxypropyl)hydantoin, 1 nM-10  $\mu$ M, a DP receptor agonist) inhibited the spontaneous contractions of both muscles, but the inhibition was conspicuously stronger in the circular muscle. Prostaglandin I2 caused excitatory and inhibitory responses in the longitudinal and circular muscles, resp., at relatively high concns. (10-100  $\mu$ M). Cicaprost, an IP receptor agonist caused inhibition of the contraction in the circular muscle but contracted the longitudinal muscle. Iloprost, an EP1/IP receptor agonist, caused excitatory responses in both muscles at relative high concns. Prostaglandin E2 caused excitatory responses at 1-100 nM and inhibitory responses at 100 nM-10  $\mu$ M in both muscle layers. ONO-DI-004 ((17S)-2,5-ethano-6-oxo-17,20-dimethyl prostaglandin E1, an EP1 receptor agonist) and ONO-AE-248 ((16S)-9-deoxy-9 $\beta$ -chloro-15-deoxy-16-hydroxy-17,17-trimethylene-19,20-didehydro prostaglandin F2, an EP3 receptor agonist) contracted the longitudinal muscle but had little effect on the circular muscle. ONO-AE1-259 (11,15-O-dimethyl prostaglandin E2, an EP2 receptor agonist) inhibited the spontaneous contractions of both muscle layers to almost the same degree, but ONO-AE1-329 (16-(3-methoxymethyl)phenyl- $\omega$ -tetranor-3,7-dithia prostaglandin E1, an EP4 receptor agonist) did not inhibit the myometrial contraction. The present results indicate that contractile (FP, EP1, EP3) and relaxatory (DP, IP, EP2) prostanoid receptors are present in the non-pregnant porcine uterus. There are marked muscle layer-related differences in the degree of responsiveness of prostanoid receptor agonists, and these differences suggest that there is a heterogeneous distribution of prostanoid receptors in the longitudinal and circular muscles (FP, EP1 and EP3, longitudinal muscle > circular muscle; DP, circular muscle > longitudinal muscle).  
 IT 211230-67-0, ONO-AE-248  
 RL: BSU (Biological study, unclassified); BIOL (Biological study) (EP3 receptor agonist; in vitro pharmacol. characterization of prostanoid receptor population in non-pregnant porcine myometrium circular and longitudinal muscle)  
 RN 211230-67-0 CAPLUS  
 CN Prosta-5,13-dien-1-oic acid, 11,15-dimethoxy-9-oxo-, (5Z,11 $\alpha$ ,13E,15S)- (9CI) (CA INDEX NAME)

Absolute stereochemistry.  
 Double bond geometry as shown.

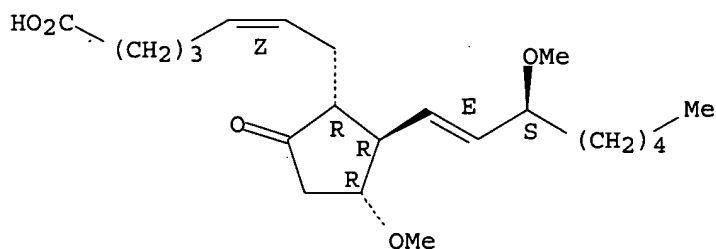


RE.CNT 32 THERE ARE 32 CITED REFERENCES AVAILABLE FOR THIS RECORD  
ALL CITATIONS AVAILABLE IN THE RE FORMAT

L9 ANSWER 10 OF 12 CAPLUS COPYRIGHT 2006 ACS on STN  
AN 2002:95245 CAPLUS  
DN 136:273510  
TI Involvement of postsynaptic EP4 and presynaptic EP3 receptors in actions of prostaglandin E2 in rat supraoptic neurones  
AU Shibuya, I.; Setiadji, S. V.; Ibrahim, N.; Harayama, N.; Maruyama, T.; Ueta, Y.; Yamashita, H.  
CS Department of Physiology, University of Occupational and Environmental Health, Kitakyushu, Japan  
SO Journal of Neuroendocrinology (2002), 14(1), 64-72  
CODEN: JOUNE2; ISSN: 0953-8194  
PB Blackwell Publishing Ltd.  
DT Journal  
LA English  
AB We have reported that supraoptic nucleus (SON) neurons are excited by prostaglandin E2 (PGE2) presumably via dual postsynaptic PG receptors, FP receptors and unidentified EP receptors, and that presynaptic EP receptors may also be involved in the excitation. In the present study, to clarify the receptor mechanism of the PGE2-mediated actions on SON neurons, we studied the pre- and postsynaptic effects of four newly developed EP agonists that are selective for each of the four EP receptors, EP1-4, on rat SON neurons using extracellular recording and whole-cell patch-clamp techniques. The EP4 agonist ONO-AE1-329 mimicked the excitatory effects of PGE2, whereas the EP1 agonist ONO-DI-004, the EP2 agonist ONO-AE1-257 and the EP3 agonist ONO-AE-248 had little or no effect. The effects of ONO-AE1-329 were unaffected by the EP1/FP/TP antagonist, ONO-NT-012, which potently suppressed the excitation caused by the FP agonist fluprostenol and PGE2. ONO-AE1-329 caused marked excitation when responses to fluprostenol were desensitized by repeated applications of fluprostenol. Patch-clamp anal. in SON neurons showed that ONO-AE1-329 induced inward currents at a holding potential of -70 mV and the reversal potential of the currents was -35.1 mV. On the other hand, the frequency of spontaneous inhibitory postsynaptic currents recorded from SON slice prepns. was suppressed by ONO-AE-248, but unaffected by the other three EP agonists. These results suggest that SON neurons possess postsynaptic EP4 receptors and that  $\gamma$ -aminobutyric acid neurons innervating SON neurons possess presynaptic EP3 receptors in their terminals. Activation of the two EP receptors may be involved in the excitatory regulation of SON neurons by PGE2.  
IT 211230-67-0, ONO-AE-248  
RL: BSU (Biological study, unclassified); BIOL (Biological study)  
(postsynaptic EP4 and presynaptic EP3 receptors in actions of prostaglandin E2 in rat supraoptic neurons)  
RN 211230-67-0 CAPLUS  
CN Prosta-5,13-dien-1-oic acid, 11,15-dimethoxy-9-oxo-,  
(5Z,11 $\alpha$ ,13E,15S)- (9CI) (CA INDEX NAME)

Absolute stereochemistry.  
Double bond geometry as shown.

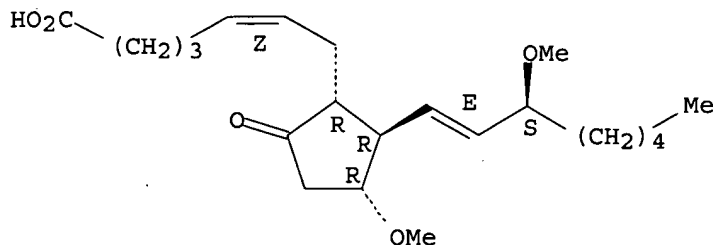




RE.CNT 31 THERE ARE 31 CITED REFERENCES AVAILABLE FOR THIS RECORD  
ALL CITATIONS AVAILABLE IN THE RE FORMAT

L9 ANSWER 11 OF 12 CAPLUS COPYRIGHT 2006 ACS on STN  
AN 2001:430099 CAPLUS  
DN 135:175924  
TI Characterization of EP receptor subtypes responsible for prostaglandin  
E2-induced pain responses by use of EP1 and EP3 receptor knockout mice  
AU Minami, Toshiaki; Nakano, Hiroyuki; Kobayashi, Takuya; Sugimoto, Yukihiro;  
Ushikubi, Fumitaka; Ichikawa, Atsushi; Narumiya, Shuh; Ito, Seiji  
CS Department of Anesthesiology, Osaka Medical College, Takatsuki, 569-8686,  
Japan  
SO British Journal of Pharmacology (2001), 133(3), 438-444  
CODEN: BJPCBM; ISSN: 0007-1188  
PB Nature Publishing Group  
DT Journal  
LA English  
AB Prostaglandin E2 (PGE2) is known to be the principal pro-inflammatory  
prostanoid and play an important role in nociception. To identify PGE  
receptor (EP) subtypes that mediate pain responses to noxious and  
innocuous stimuli, the authors studied them by use of EP1 and EP3 knockout  
(EP1<sup>-/-</sup> and EP3<sup>-/-</sup>) mice. PGE2 could induce mech. allodynia in EP1<sup>+/+</sup>,  
EP3<sup>+/+</sup> and EP3<sup>-/-</sup> mice, but not in EP1<sup>-/-</sup> mice. N-methyl-D-aspartate  
(NMDA), the substrate of nitric oxide (NO) synthase L-arginine, or the NO  
donor sodium nitroprusside administered intrathecal (i.t.) could induce  
allodynia in EP3<sup>-/-</sup> and EP1<sup>-/-</sup> mice. Activation of EP1 receptors appears  
to be upstream, rather than downstream, of NMDA receptor activation and NO  
production in the PGE2-induced allodynia. Although PGE2 produced thermal  
hyperalgesia over a wide range of dosages from 50 pg to 0.5 µg kg<sup>-1</sup> in  
EP3<sup>+/+</sup> mice, it showed a monophasic hyperalgesic action at 5 ng kg<sup>-1</sup> or  
higher doses in EP3<sup>-/-</sup> mice. The selective EP3 agonist, ONO-AE-248,  
induced hyperalgesia at 500 pg kg<sup>-1</sup> in EP3<sup>+/+</sup> mice, but not in EP3<sup>-/-</sup>  
mice. Saline-injected EP1<sup>-/-</sup> mice showed hyperalgesia, which was reversed  
by i.t. PGE2 in a dose-dependent manner. There was no significant  
difference in the formalin-induced behaviors between EP1<sup>-/-</sup> or EP3<sup>-/-</sup> mice  
and the cognate wild-type mice. These results demonstrate that spinal EP1  
receptors are involved in the PGE2-induced allodynia and that spinal EP3  
receptors are involved in the hyperalgesia induced by low doses of PGE2.  
However, the formalin-induced pain cannot be ascribed to a single EP  
receptor subtype EP1 or EP3.  
IT 211230-67-0, ONO-AE-248  
RL: BAC (Biological activity or effector, except adverse); BSU (Biological  
study, unclassified); BIOL (Biological study)  
(characterization of prostanoid EP receptor subtypes responsible for  
prostaglandin E2 induced pain responses by use of EP1 and EP3  
receptor knockout mice)  
RN 211230-67-0 CAPLUS  
CN Prosta-5,13-dien-1-oic acid, 11,15-dimethoxy-9-oxo-,  
(5Z,11α,13E,15S)- (9CI) (CA INDEX NAME)

Absolute stereochemistry.  
Double bond geometry as shown.



RE.CNT 26 THERE ARE 26 CITED REFERENCES AVAILABLE FOR THIS RECORD  
ALL CITATIONS AVAILABLE IN THE RE FORMAT

L9 ANSWER 12 OF 12 CAPLUS COPYRIGHT 2006 ACS on STN

AN 1999:617854 CAPLUS

DN 132:19149

TI Selective activation of the prostanoid EP3 receptor reduces myocardial infarct size in rodents

AU Zacharowski, Kai; Olbrich, Antje; Piper, Julie; Hafner, Gerd; Kondo, Kigen; Thiemermann, Christoph

CS William Harvey Research Institute, St Bartholomew's and the Royal London School of Medicine and Dentistry, London, EC1 M 6BQ, UK

SO Arteriosclerosis, Thrombosis, and Vascular Biology (1999), 19(9), 2141-2147

CODEN: ATVBFA; ISSN: 1079-5642

PB Lippincott Williams & Wilkins

DT Journal

LA English

AB The cardioprotective effects of E-type prostaglandins (EPs) have been attributed to vasodilatation, inhibition of platelet and neutrophil function (EP2 mediated), and an unknown cytoprotective effect. The authors have hypothesized that selective activation of EP3 receptors may cause cardioprotection. The prostanoid derivative ONO-AE-248 selectively binds to murine EP3 $\alpha$  receptors expressed in Chinese hamster ovary (CHO) cells (K<sub>i</sub>, 15 nmol/L) and prevents the rise in cAMP caused by forskolin in CHO cells (IC<sub>50</sub>  $\approx$  1 nmol/L) in which the EP3 $\alpha$  receptor had been expressed. In anesthetized rats subjected to regional myocardial ischemia for 25 or 45 min and 2 h of reperfusion, infusion of ONO-AE-248 (5  $\mu$ g/kg/min, i.v.) caused a significant reduction in infarct size from 60% to 36% and from 78% to 58%, resp. The reduction in infarct size caused by ONO-AE-248 in rats subjected to 25 min of ischemia and reperfusion was abolished by a selective inhibitor of ATP-sensitive K (KATP) channels, 5-hydroxydecanoate, and the protein kinase C inhibitors staurosporine and chelerythrine. In anesthetized rabbits subjected to coronary artery occlusion for 45 or 60 min and 2 h of reperfusion, infusion of ONO-AE-248 (5  $\mu$ g/kg/min, i.v.) caused a significant reduction in infarct size from 61% to 36% and from 63% to 42%, resp. The reduction in infarct size caused by ONO-AE-248 in the rabbit was also abolished by 5-hydroxydecanoate. The cardioprotective effect of ONO-AE-248 in rats or rabbits was not associated with any hemodynamic effects. Selective activation of the prostanoid EP3 receptor reduces myocardial infarct size in rodents by a mechanism(s) that may involve the activation of protein kinase C and the opening of KATP channels.

IT 211230-67-0, ONO-AE 248

RL: BAC (Biological activity or effector, except adverse); BSU (Biological study, unclassified); BIOL (Biological study)

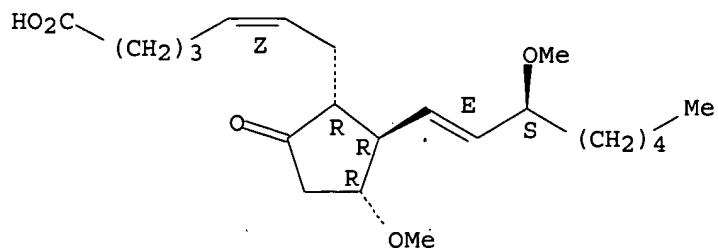
(EP3 receptor activation reduces myocardial infarct size in rodents)

RN 211230-67-0 CAPLUS

CN Prosta-5,13-dien-1-oic acid, 11,15-dimethoxy-9-oxo-, (5Z,11 $\alpha$ ,13E,15S)- (9CI) (CA INDEX NAME)

Absolute stereochemistry.

Double bond geometry as shown.



RE.CNT 26 THERE ARE 26 CITED REFERENCES AVAILABLE FOR THIS RECORD  
ALL CITATIONS AVAILABLE IN THE RE FORMAT

=> s l7 and asthma  
30341 ASTHMA  
L10 1 L7 AND ASTHMA

=>

---Logging off of STN---

=>

Executing the logoff script...

=> LOG Y

COST IN U.S. DOLLARS	SINCE FILE	TOTAL
	ENTRY	SESSION
FULL ESTIMATED COST	81.39	248.96
DISCOUNT AMOUNTS (FOR QUALIFYING ACCOUNTS)	SINCE FILE	TOTAL
	ENTRY	SESSION
CA SUBSCRIBER PRICE	-9.00	-9.00

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LOGINID:ssptamxgl614

PASSWORD:

TERMINAL (ENTER 1, 2, 3, OR ?):2

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NEWS	2	"Ask CAS" for self-help around the clock
NEWS	3 DEC 21	IPC search and display fields enhanced in CA/Caplus with the IPC reform
NEWS	4 DEC 23	New IPC8 SEARCH, DISPLAY, and SELECT fields in USPATFULL/